PB81-234288

Wastewater Treatment Facilities South Shore Lake Tahoe Basin: South Tahoe Public Utility District California, Douglas County Sewer Improvement District No. 1, Nevada. Appendix A

Sedway/Cooke
San Francisco, CA

Prepared for

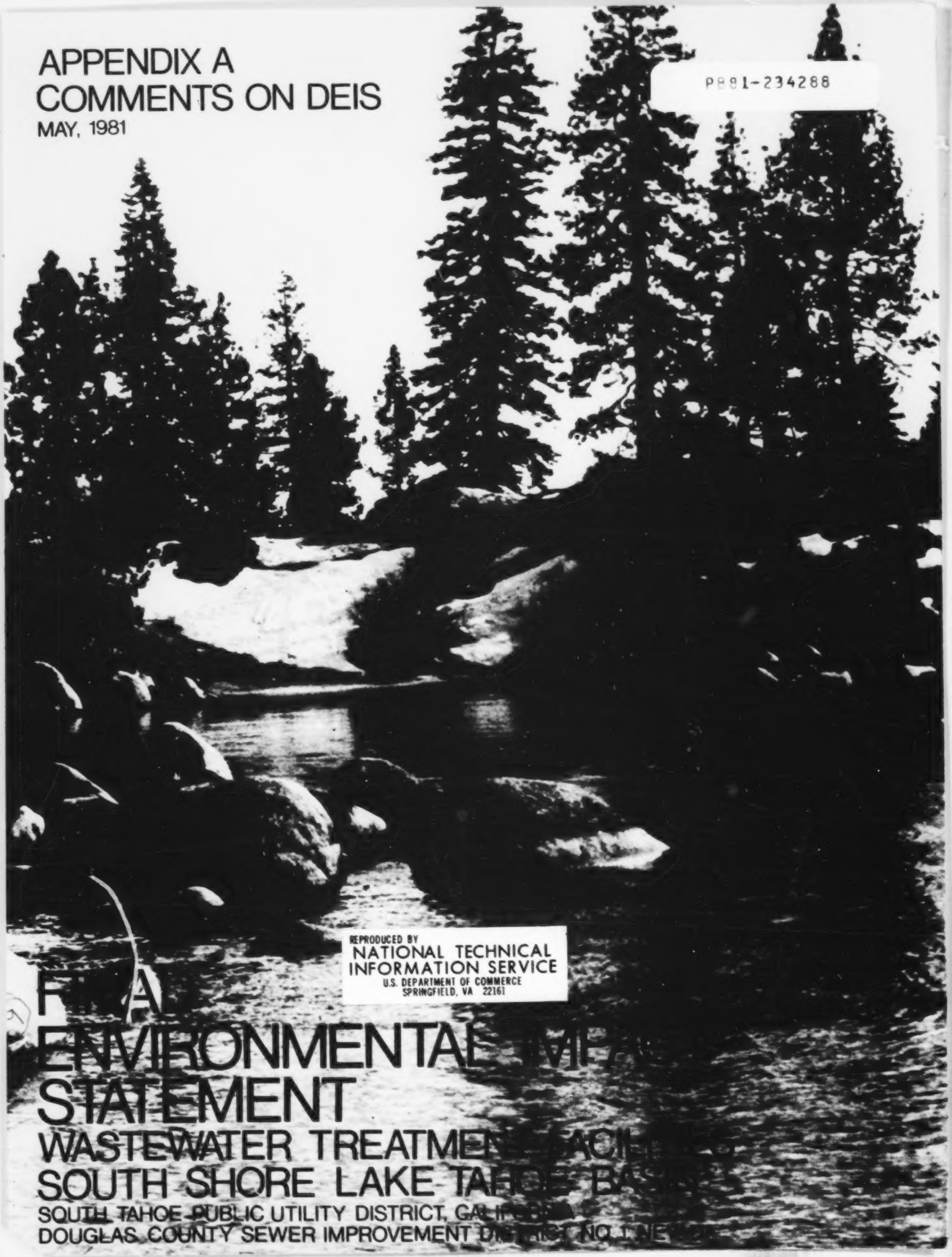
Environmental Protection Agency
San Francisco, CA

May 81

U.S. Department of Commerce
National Technical Information Service
NTIS

APPENDIX A
COMMENTS ON DEIS
MAY, 1981

PB81-234288



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FINAL ENVIRONMENTAL IMPACT STATEMENT
WASTEWATER TREATMENT FACILITIES
SOUTH SHORE LAKE TAHOE BASIN

SOUTH TAHOE PUBLIC UTILITY DISTRICT, CALIFORNIA
DOUGLAS COUNTY SEWER IMPROVEMENT DISTRICT NO. 1, NEVADA

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5. Report Date
May 1981

6.

7. Author(s)

8. Performing Organization Rept. No.

9. Performing Organization Name and Address

Sedway Cooke
San Francisco, CA

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.
(C)
(G)

12. Sponsoring Organization Name and Address

U.S. Environmental Protection Agency
215 Fremont Street
San Francisco, CA 94105

13. Type of Report & Period Covered

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15. Supplementary Notes

16. Abstract (Limit: 200 words)

This Final Environmental Impact Statement on the wastewater treatment programs, proposed by the South Tahoe Public Utility District and the Douglas County Sewer Improvement District No. 1, contains EPA's recommendations on the proposed projects, a mitigation program, and responses to public comment and resultant revisions and additions to the Draft EIS, issued in October of 1979. This document provides a summary of the many events that have occurred since the Draft EIS was published, events which have altered the projects originally proposed by the wastewater agencies. Based on the impact analysis of various growth scenarios performed in the Draft EIS and commitments to mitigate primary and secondary adverse impacts, EPA recommends for South Tahoe Public Utility District a 7.5 mgd maximum daily flow wastewater treatment plant which produces secondary treated and filtered effluent for agricultural irrigation in Alpine County, California. Possible further plant expansion is contingent upon approval by various local and regulatory agencies and adequate performance under the mitigation program. With respect to the Douglas County Sewer Improvement District No. 1, a lack of progress in developing a mitigation program has resulted in an Agency decision to postpone finalizing the EIS for that district. Two appendices have been prepared as part of the Final EIS. Appendix A contains the written comments submitted on the Draft EIS. Appendix B contains the mitigation program, including implementation statements from the responsible agencies.

17. Document Analysis a. Descriptors

Lake Tahoe Basin
South Lake Tahoe
Wastewater treatment
Treatment facilities
Douglas County NV
Environmental impact statements
Air quality

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement	19. Security Class (This Report)	21. No. of Pages
	20. Security Class (This Page)	22. Price

(See ANSI-Z39.18) See Instructions on Reverse

OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

TECHNICAL APPENDICES

APPENDIX A: COMMENTS ON DEIS

FINAL ENVIRONMENTAL IMPACT STATEMENT

SOUTH TAHOE PUBLIC UTILITY DISTRICT AND DOUGLAS COUNTY SEWER IMPROVEMENT DISTRICT NO. 1

El Dorado and Alpine Counties, California

and

Douglas County, Nevada

Lead Agency: U.S. Environmental Protection Agency

Responsible Official: Sheila M. Prindiville
Acting Regional Administrator
U.S. Environmental Protection Agency,
Region IX
San Francisco, California

For Information Contact: Mark Zuckerman
U.S. Environmental Protection Agency
215 Fremont Street
San Francisco, California 94105
(415) 556-1598

Principal Author: Sedway/Cooke
San Francisco, California

TABLE of CONTENTS

Page

I. INTRODUCTION 1

II. WRITTEN COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT 5

U.S. Department of Agriculture, Soil Conservation Service, Reno, NV 5
Nevada Division of State Parks 7
Nevada Environmental Action Trust 9
California Department of Transportation 11
U.S. Department of Interior 15
Lake Tahoe Unified School District 18
Carson River Basin Council of Governments 19
South Tahoe Public Utility District 21
California Department of Forestry 31
Neva Roberts 32
California Tahoe Regional Planning Agency 34
Advisory Council on Historic Preservation 42
California State Lands Commission 44
Barbara Annoni 47
U.S. Department of Agriculture, Soil Conservation Service, Davis CA 48
Glenbrook Properties 49
Friends of Alpine 51
California Regional Water Quality Control Board - Lahontan 54
Raymond Smith, RMS Inc. 67
Joseph Brecher 69
Tahoe Regional Planning Agency 78
U.S. Department of Interior - Interagency Archaeological Services 116
U.S. Fish and Wildlife Service - Endangered Species Office 118
State of California: California Resources Agency, Department of Fish and Game, Lahontan Regional Water Quality Control Board, Air Resources Board, State Lands Commission, Department of Transportation, Department of Water Resources, Department of Forestry 123
Round Hill General Improvement District 149
David Moser 150
Douglas County Planning Department and Douglas County Board of Commissioners 155
City of South Lake Tahoe 182
Lake Tahoe Audubon Society 255
Tahoe Resource Conservation District 257
League to Save Lake Tahoe 258
Citizens of South Lake Tahoe 268
U.S. Department of Agriculture, Forest Service 271
Nevada Division of Environmental Protection 279
Nevada Division of Environmental Protection 287
Natural Resources Defense Council, Inc. 290
Paul W. O'Rear 293
George Drake 294
California Office of Planning and Research 297
California Water Resources Control Board 300

LIST of TABLES

Page

Table 1: List of Individual(s)/Agency(s) Submitting Verbal Comments on the DEIS 3

Table 2: List of Individual(s)/Agency(s) Submitting Written Comments on the DEIS 4

I. INTRODUCTION

An integral part of the environmental impact statement process is the need for public involvement and for public agencies as well as private interests to comment upon the Draft Environmental Impact Statement (DEIS).

About 500 copies of the DEIS were printed for distribution to reviewing agencies, organizations, and individuals during the distribution period. Copies were also distributed at the following locations:

Sierra Tahoe Regional
Resource Library
Capitol Complex
Carson City, NV 89710

Alpine County Library
Court House Annex
Markleeville, CA 96120

El Dorado County Library
South Lake Tahoe Branch
3058 Highway 50
South Lake Tahoe, CA 95702

Lake Tahoe Branch Library
259 Kingsbury Grade
Stateline, NV 89449

Douglas County Library
8th and Esmeralda
Minden, NV 89423

Sacramento Main Library
828 I Street
Sacramento, CA 95814

Environmental Protection
Agency -- Region IX
Library
215 Fremont Street
San Francisco, CA 94105

Environmental Protection Agency
Public Reference Unit (PM-213)
410 M Street, S.W., Room 2922
Washington D.C. 20460

Special announcements of the four public hearings were published in local newspapers. The announcements explained the project, described its impacts, and invited the public to attend the public hearings, which were held at the following locations:

January 21, 1980 7:30 PM	Federal Building, Room West 1140, 2800 Cottage Way, Sacramento, California
January 22, 1980 7:30 PM	Douglas County Library, Meeting Room, 8th and Esmeralda Streets, Minden, Nevada
January 23, 1980 7:30 PM	Turtle Rock Park, Community Building (just off Highway 89), Markleeville, California

January 24, 1980 7:30 PM	Lake Tahoe Unified School District Board Room, 2920 Lake Tahoe Boulevard, South Lake Tahoe, California

The public hearings were held to receive verbal and written comments on the DEIS. Each hearing began with a brief presentation by representatives of EPA, Region IX, and their consultants. The meetings were then opened for testimony to all those attending and wishing to speak.

Individuals or agencies making comments at the public hearings are identified in Table 1. Copies of the complete public hearing transcripts are available at EPA, Region IX, in San Francisco and at STPUD's offices in South Lake Tahoe. A list of individuals or agencies submitting written comments is found on Table 2, and copies of the written comments are presented in the following section.

Responses to both verbal and written comments were prepared and are included as part of the Final EIS.

TABLE I

LIST OF INDIVIDUAL(S)/AGENCY(S) SUBMITTING VERBAL COMMENTS ON THE DEIS

Sacramento, California

1. Joseph J. Brecher, Attorney at Law, League to Save Lake Tahoe
2. James R. Cofer, Manager/Engineer, South Tahoe Public Utility District
3. Michael Kelley, Sugarloaf Tree Farms, Kyburz, California
4. William J. Miller, Vice Chairman, California Resources Agency
5. Stephen E. Oliva, Assistant to the Secretary, California Resources Agency
6. Stan Randolph, Manager - Tahoe Unit, Air Resources Board
7. Michael J. Seaman, Sacramento, California
8. Robert D. Skidmore, Chief, Department of Transportation

Minden, Nevada

1. Lester H. Berkson, Attorney at Law, Zephyr Cove, Nevada
2. Ken Kjer, County Commissioner, Douglas County

Markleeville, California

1. Tom Abbett, Bureau of Land Management, Nevada
2. Miles L. Celio, Markleeville, California
3. James Cofer, Manager/Engineer, South Tahoe Public Utility District
4. Dean McKinley, Old Dangberg Sheep Camp, Hope Valley, California.
5. Worth J. Moll, Markleeville, California.
6. Wilton Neddenriep, Supervisor, Alpine County
7. Robert Pruett, Douglas County Sewer Improvement District No. 1

South Lake Tahoe, California

1. James R. Cofer, Manager/Engineer, South Tahoe Public Utility District
2. David T. Dubbink, Executive Officer, California Tahoe Regional Planning Agency
3. W.F. "Bill" Huss, Attorney at Law, Douglas County Sewer Improvement District No. 1
4. James R. Jones, Director, South Tahoe Public Utility District
5. Richard Milbrodt, City Manager, South Lake Tahoe
6. Ronald Nahas, Glenbrook Properties, Nevada
7. John M. Reily, Tahoe City, California
8. Tom Smallwood, South Lake Tahoe Board of Realtors
9. Kenneth C. Smith, M.D., Lake Tahoe Audubon Society
10. Jere E. Williams, Douglas County Sewer Improvement District No. 1

TABLE 2

LIST OF INDIVIDUAL(S)/AGENCY(S) SUBMITTING WRITTEN COMMENTS ON THE DEIS

1. U.S. Department of Agriculture, Soil Conservation Service, Reno, NV
2. Nevada Division of State Parks
3. Nevada Environmental Action Trust
4. California Department of Transportation
5. U.S. Department of Interior
6. Lake Tahoe Unified School District
7. Carson River Basin Council of Governments
8. South Tahoe Public Utility District
9. California Department of Forestry
10. Neva Roberts
11. California Tahoe Regional Planning Agency
12. Advisory Council on Historic Preservation
13. California State Lands Commission
14. Barbara Annoni
15. U.S. Department of Agriculture, Soil Conservation Service, Davis CA
16. Glenbrook Properties
17. Friends of Alpine
18. California Regional Water Quality Control Board - Lahontan
19. Raymond Smith, RMS Inc.
20. Joseph Brecher

21.+22. Tahoe Regional Planning Agency

23. U.S. Department of Interior - Interagency Archaeological Services
24. U.S. Fish and Wildlife Service - Endangered Species Office
25. State of California: California Resources Agency, Department of Fish and Game, Lahontan Regional Water Quality Control Board, Air Resources Board, State Lands Commission, Department of Transportation, Department of Water Resources, Department of Forestry
26. Round Hill General Improvement District
27. David Moser
28. Douglas County Planning Department and Douglas County Board of Commissioners
29. City of South Lake Tahoe
30. Lake Tahoe Audubon Society
31. Tahoe Resource Conservation District
32. League to Save Lake Tahoe
33. Citizens of South Lake Tahoe
34. U.S. Department of Agriculture, Forest Service
35. Nevada Division of Environmental Protection
36. Nevada Division of Environmental Protection
37. Natural Resources Defense Council, Inc.
38. Paul W. O'Rear
39. George Drake
40. California Office of Planning and Research
41. California Water Resources Control Board

II. WRITTEN COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

(HE-158) 1

United States
Department of
Agriculture

Soil
Conservation
Service

P. O. Box 4850
Reno, Nevada 89505

December 10, 1979

U. S. Environmental Protection Agency
ATTN: Hearing Officer, HE-158
Region IX
215 Fremont Street
San Francisco, California 94105

Gentlemen:

We appreciate the opportunity to comment on the Draft EIS for the proposed Wastewater Treatment Facilities - South Shore Lake Tahoe Basin, and recommend the following change:

Page 234, Table 36 - Recurrence Intervals and Flood of Record for the Carson River.

The Soil Conservation Service has recently completed a flood insurance study for the Carson Valley in Nevada. Recurrence intervals for the locations shown in Table 36 have been revised using a mixed population (rain and snowmelt) series. These revised values are shown on the attached copy of page 234.

It is recommended that these revised values be used in the EIS report. These values have the concurrence of other Federal agencies and are being used by the Federal Emergency Management Agency in their flood insurance program for Douglas County, Nevada.

Sincerely,

G. Thola

Gerald Thola
State Conservationist

Attachments

cc:

John Capurro, DC, SCS, Minden, NV
Loren Spencer, SCE, SCS, Reno, NV

TABLE 36

RECURRENCE INTERVALS AND FLOODS OF RECORD FOR THE CARSON RIVER[1]

Location	(Gage No)	Flow in cubic feet per second for recurrence interval			
		100 yrs	50 yrs	25 yrs	10 yrs
East Fork Carson River near Gardnerville	(103090)	20350 ~~18,568~~	14,400 ~~13,726~~	10.700 ~~10,016~~	6,900 ~~6,419~~
West Fork Carson River at Woodfords	(103100)	8,450 ~~5,844~~	5,250 ~~4,400~~	3,700 ~~3,264~~	2,300 ~~2,127~~
Carson River near Carson City	(103110)	44,250 ~~41,218~~	26,400 ~~26,491~~	16,000 ~~16,764~~	8,400 ~~8,838~~

---

[1] A recurrence interval of 50 years indicates that flow, on the average, is met or exceeded once in 50 years. For example, the flow for the East Fork that can be expected to be met or exceeded in the next 25 years is 10,016 c.f.s. It may, however, occur at any time.

Date Month/ Year	East Fork		West Fork		Carson River at Carson City	
	Peak Flow (cfs)	Recur. Interval (years)	Peak Flow (cfs)	Recur. Interval (years)	Peak Flow (cfs)	Recur. Interval (years)
Dec.'37	10,300	~~27~~ 25	3,500	~~29~~ 25	Not Available	
Nov. '50	12,100	~~31~~ 35	4,730	~~59~~ 40	15,500	~~22~~ 25
Dec. '55	17,600	~~85~~ 80	4,810	~~65~~ 45	30,000	~~59~~ 60
Feb. '63	13,400	~~68~~ 40	4,890	~~67~~ 48	21,900	36 35
Dec. '64	8,230	~~16~~ 15	3,100	~~25~~ 20	8,740	~~10~~ 10

Source: ~~U.S. Department of Agriculture and U.S. Soil Conservation Service, Special Report: History of Flooding, Carson Valley and Carson City Watershed, 1973.~~

U.S. Dept. of Agriculture - Soil Conservation Service, Douglas County Flood Insurance Study Febuary 1978.

ROBERT LIST
Governor

NEVADA

DIVISION
OF
STATE
PARKS

JOHN L. MEDER
Administrator

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1923 N. CARSON ST.
CAPITOL COMPLEX
CARSON CITY,
NEVADA 89710
(702) 885-4384

Mailing Address:
Capitol Complex
Carson City
Nevada 89710

(HE-158) 2

In Reply Refer to:
805

JAN 10 1980

Ms. Janet Rosati
U.S. Environmental Protection
  Agency, Region IX
215 Fremont Street
San Francisco, CA 95105

Dear Ms. Rosati:

Subject: DRAFT EIS FOR SOUTH TAHOE P.U.D. AND DOUGLAS COUNTY SEWER TREATMENT PLANTS

The Nevada Division of State Parks reviews clearinghouse documents for impacts on outdoor recreation, conservation, and open space needs for the state. The following comments relate to the secondary impacts of expanding and improving the two wastewater treatment facilities that serve the south shore communities of Lake Tahoe.

The primary consideration should be to decide to what extent the projects can be implemented without diminishing the environmental values of the Lake Tahoe Basin and the Upper Carson River Basin.

The water quantity impacts of discontinuing discharge of effluent to the Carson River should be analyzed, likewise, the impacts of STPUD discontinuing discharge to Indian Creek Reservoir should be analyzed.

The USFS Lake Tahoe Basin Management Unit has recently completed a Land Management Plan (Part 2) for the entire management area. The recommended alternative (#5 in draft EIS) emphasizes water-oriented recreation, where it can be served by the existing utility system. Although most new recreation development would be located near full service areas, capacity for these facilities should be reserved in wastewater treatment planning. This would help reduce the adverse effects cited in "Recreation" on page 8.

Administration: (702) 885-4384
Operation and Maintenance: (702) 885-4397
Planning and Development: (702) 885-4370

a division of the Department of Conservation and Natural Resources
Roland D. Westergard, Director

The draft EIS should include a section that describes how implementation of the wastewater treatment increase opportunities for recreation and open space, as required by the 1977 Amendments to the Federal Water Pollution Control Act (FWPCA). It should also cite how implementation will make the water resources "swimmable and fishable."

Visual resources should be protected by minimizing development through low growth scenarios and implementing the mitigating measures presented in Table 4.

Sincerely,

John L. Meder
Administrator

By: Jay Meierdierck
Program Coordinator

JM:kc

cc: Roland Westergard
Bob Hill

(HE-158) 3

RECEIVED
A. REGION IX
JAN 21 10 [illegible] AM '80

Nevada
Environmental
Action
Trust

372 B Casazza Drive
Reno, Nevada 89513
P.O. Box 6675
Phone (702) 348-7717

January 16, 1980

U.S. Environmental Protection Agency
Attention: Hearing Office, HE-158
Region IX
215 Freemont Street
San Francisco, CA 94105

ISSUE: DRAFT ENVIRONMENT IMPACT STATEMENT FOR SOUTH LAKE TAHOE PUBLIC UTILITY DISTRICT, CALIFORNIA AND DOUGLAS COUNTY SEWER IMPROVEMENT DISTRICT NO. 1, NEVADA, SEWAGE TREATMENT PLANTS.

Before addressing the issues in the summary draft E.I.S., one should remember that mother nature is probably the biggest pollutor in the Tahoe basin. Through the natural process of nature, both air and water receive large amounts of pollutants and virtually no effort by man is going to eliminate this.

Given that thought, I would like to address the following comments to the E.I.S. summary.

Page 1, Para. 1
I believe the question of the plants violating the discharge requirements were recently addressed in a court case and the manner in which samples were taken was questioned. As a result of this, at least at the Douglas County plant, there was the distinct possibility that this plant was performing properly and that there is little or no cause to question the operation.

Page 1, Para. 3
Same comment as above.

Page 2, Para. 2
I would strongly support any effort to eliminate the need for advanced sewage treatment. The operations and maintance cost for this process is prohibitive and places an extremely heavy financial burden on the users of the facility.

Page 3, Para. 2
There are people associated with other than casino business who might have need of increased capicity at both plants. What about those people who own property in the

"Taking action today for a better tomorrow."

area, but don't plan to build on the property for several years? What will they do if you don't continue to supply adequate capacity to meet their needs? Will they loose the benefit of having paid property taxes over the past years? Will the property values be worthless?

Page 6, Para. 1

If streets and highways were upgraded to adequately accomodate the traffic flows, the major portion of these problems would be resolved.

Page 8, Para. 1

Transportation: Same response as above paragraph. The growth will not appear over night. If resonable action is taken now, the growth and its problems will be taken care of.

Page 8, Para. 2

Recreation: This paragraph insinuates that private enterprise is incapable of handling the situation as well as government. If the truth were known, the private sector can probably do it as well as government and possibly even better if government would get out of the way.

Page 8, Para. 3

Public Services/Fiscal: Historically, when the demand has exceeded the supply, private enterprise and its ingenuity has stepped in to solve the problem. They will do it again, given the opportunity.

Page 10, Para. 1

Utilities: Steps are continuously being taken to upgrade the method and quality of utilities supplied to the basin.

Once again, I would like to state that if these two wastewater treatment facilities are expanded and growth does occur, it will not happen instantainously. There will be time for planning to meet all increased demands. If there is a foreseeable problem, then there is also a solution, and one simply has to be applied to the other.

Sincerely,

Thomas Young

Thomas W. Young
Executive Manager

TWY:kb

(HE-158) 4

STATE OF CALIFORNIA—BUSINESS AND TRANSPORTATION AGENCY
EDMUND G. BROWN JR., Governor

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION PLANNING
1120 N STREET
P.O. BOX 1499
SACRAMENTO, CALIFORNIA 95807
(916) 445-7111

COMM C [illegible]
JAN 21 12 [illegible]

January 15, 1980

U. S. Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, California 94105

Attention: Hearing Officer, HE-158

Gentlemen:

Draft Environmental Impact Statement (EIS)
Proposed Wastewater Treatment Facilities
South Shore - Lake Tahoe Basin

The following comments relate to the draft EIS circulated December 4, 1979. The following concerns should be addressed in the final environmental document.

Page 4, Table 1

Scenario Five would effectively double the sewage capacity at South Lake Tahoe. Transportation and air quality issues are already serious, and proposals for mitigation do not allow for this level of growth. The problem is recognized throughout your analysis, but the seriousness appears to be overlooked in the statements on page 285. The impact of growth is shown on page 8 by the following statement: "Traffic generated by residential development can be expected to increase in almost direct proportion to the population increase." We cannot imagine mitigation of double the traffic demands anywhere in the Tahoe Basin. This matter should be addressed in the final EIS.

Page 14, Paragraph One

There appears to be a given assumption that major STPUD plant expansion will occur, requiring a revised disposal process in Alpine County. The statement "EPA can only recommend that land application of the treated sewage be undertaken" seems premature. After reviewing the impacts of Alpine County disposal, page 68, other alternatives would appear to be in order. Have alternatives of retaining existing use of Indian Valley along with limited growth been considered?

Page 14, Paragraph Three

The issue of Federal funding for a 10 mgd plant is not easily resolved through the STPUD obtaining commitments for mitigation measures. What is meant by a commitment? How does the STPUD obtain a commitment for transportation legislation and funding? A growth scenario for a 10 mgd plant cannot be mitigated through current transportation proposals. How about the impacts of the transportation development needed for meeting the 10 mgd growth scenario? Can these be mitigated through commitments by the district? This should be addressed.

Page 15, Table 4

Energy consumption must be included as an impacted natural resource. Development of tourist-oriented facilities in this relatively remote area encourages increased travel. The impacts of this increase must be considered in the decision process.

Page 24, Table 5

Casino development has major impacts on South Shore transportation and should be clearly presented in the growth scenarios. The "high" assumption includes 110,000 square feet expansion of casino floor area. While this assumption may include the planned Harveys expansion (50,000 square feet), the Palace (33,000 square feet) and the Oliver (33,500 square feet), it does not present major internal expansions and anticipated casino trip generation resulting from construction of the four major parking structures. The currently approved structures will increase available parking from the existing 7,100 spaces to a total of nearly 14,000 spaces. Anticipated impacts of this major expansion must be included for proper evaluation.

Page 156, Paragraph Two

The discussion of development impacts on air quality and traffic leaves doubt as to the critical nature of the impact.

We suggest revised wording to indicate that further development will exacerbate existing problems rather than "is likely to exacerbate existing problems".

Page 168, Last Paragraph

The discussion of west shore congestion must be revised. Major congestion now occurs during summer months on Route 89 immediately south of Tahoe City and on Route 28 through Tahoe City, also on Route 28 at the northshore stateline. Winter congestion occurs on Route 89 throughout the entire Tahoe City area, including Route 89 to Squaw Valley.

Page 171, Table 34

A description of practical capacity including figures representing absolute capacity would be invaluable for reader understanding of existing major congestion problems and for what will occur under the various growth scenarios.

Page 172, Traffic Volume Chart

The use of average weekday traffic volumes is misleading. A better comparison of existing traffic to capacity conditions can be made by using summer day figures. Otherwise, the low traffic months lower the overall average and imply less concern with the problem. The 44,000 ADT at Stateline appears to be in error. Traffic on Van Sickle and on the lower loop should also be included.

Page 263, Paragraph Three

A discussion of Route 19 and the impacts of widening must have more detailed analysis. Route 50 capacity along the eastern shoreline cannot necessarily handle the diversion, and Route 19 cannot be widened without major environmental disturbance.

Page 285, Paragraph Four

The statement indicating EPA's willingness to fund a 10 mgd plant if no resulting environmental degradation occurs, is unrealistic, based on the preceding 284 pages of major impact assessment. The environmental document clearly defines the inability of the region to accommodate and absorb the anticipated growth of this magnitude without major degradation of the area. This is a subject area that requires the utmost of consideration and should be addressed in the final document.

Sincerely,

Ann Barkley

ANN BARKLEY
Chief

(HE-158) 5

U.S.E.P.A.
REGION 9
COMM CNTR

JAN 24 11 42 AM '80

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
PACIFIC SOUTHWEST REGION
BOX 36098 • 450 GOLDEN GATE AVENUE
SAN FRANCISCO, CALIFORNIA 94102
(415) 556-8200

ER 79/1155

January 23, 1980

Mr. Paul DeFalco, Jr.
Regional Administrator
U.S. Environmental Protection Agency
215 Fremont Street
San Francisco, CA 94105

Dear Mr. DeFalco,

The Department of the Interior has reviewed the draft environmental statement for Wastewater Treatment Facilities, South Shore, Lake Tahoe Basin, Douglas County, Nevada. We offer the following comments for your consideration.

General Comments

Uncontrolled growth of commercial and residential development threatens the natural beauty of this nationally significant resource. Development predicted for the highest growth scenarios would cause serious deterioration of dispersed-use recreational opportunities, visual resources, and loss of valuable cultural resources in the Tahoe Basin. Mitigation measures required to prevent serious environmental deterioration may be difficult to implement, which may preclude adoption of higher wastewater treatment capacities.

We concur with the decision to coordinate selection of growth scenario based upon the Lake Tahoe Basin Air Quality Nonattainment Plan and the California State Water Resources Control Board's Water Quality Management Plan.

Cultural Resources

The Interagency Archeological Service is concerned about the adequacy of archeological surveys in the project area. The IAS has requested a copy of the archeological surveys (Peak, A.S., and Associates, 1978a and 1978b), and will offer further comment once the reports have been reviewed.

We are pleased to see that the draft statement provides recommendations for site-specific cultural resource survey work, along with several proposed mitigating measures. The final statement should contain specific commitments from EPA to have such work carried out when proposed facilities, locations, and pipeline routes are known (e.g., change "should" to "shall" in sentence 4, paragraph 2, page 213). The pipeline routes should remain flexible enough to allow changes in alignment to avoid any significant sites discovered. Presentation of alternative reservoir locations should be included if significant archeological resources are discovered. If possible, the final statement should contain at least preliminary results of this identification and evaluation work, along with any further proposed mitigation measures. The results of coordination with the new SHPO should also be included in the final statement.

Recreation Resources

Discussion of recreational resources and the impact of potential growth scenarios on future recreational opportunities is adequate. Mitigation measures proposed should be presented in a more detailed form in the final statement based upon coordination with the other Tahoe Basin Plans now in progress.

Visual Resources

Mitigation Measure number 3 (page 141) should specifically include adoption of a sign or street graphics ordinance. A variety of model ordinances are available for adaptation to the specific needs and restrictions of the Tahoe Basin.

Thank you for the opportunity to review this document. If you have any questions on the Department's comments, please contact my office.

Sincerely yours,

Patricia S. Port

Patricia Sanderson Port
Regional Environmental Officer

cc: Director, OEPR (w/copy incoming)
Director, Fish and Wildlife Service
Director, Heritage Conservation & Recreation Service
Director, National Park Service
Director, Bureau of Mines
Director, Geological Survey

Director, Office of Surface Mining
Director, Bureau of Land Management
Commissioner, Water and Power Resources Service
Commissioner, Bureau of Indian Affairs
Reg. Dir., FWS
Reg. Dir., HCRS
Reg. Dir., NPS
Reg. Dir., BM
Reg. Dir., GS
Reg. Dir., OSM
Reg. Dir., BLM
SHPO

(HE-158) 6

LAKE TAHOE UNIFIED SCHOOL DISTRICT

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MEYERS ELEMENTARY SCHOOL
SIERRA HOUSE ELEMENTARY SCHOOL
TAHOE VALLEY ELEMENTARY SCHOOL
SOUTH TAHOE INTERMEDIATE SCHOOL
MT. TALLAC HIGH SCHOOL
SOUTH TAHOE HIGH SCHOOL

BOARD OF EDUCATION

MEETINGS
at indicated address
2nd and 4th Tuesdays
7:30 p.m.

Donald A. Frier, D.D.S., Pres.
Kerry S. David, Clerk
Laurence G. Cosper, D.D.S.
James B. Norton
Patricia Whitely

U.S.E[illegible]
REGI[illegible]
CO[illegible]

JAN 21 [illegible]

January 16, 1980

Environmental Protection Agency
215 Fremont Street
San Francisco, CA 94105

Attn: Janet Rosati

Dear Ms. Rosati:

The Draft Environmental Impact Statement prepared to evaluate grant applications to finance enlargement of South Tahoe Public Utility District facilities is, in the opinion of the Board of Education of the Lake Tahoe Unified School District (South Shore, California), seriously defective in the following respects:

1. The assessment of impact on schools is inadequate. The statement relies on the CTRPA Steven Alward Study, which projected potential maximum enrollment in current facilities on a 32 pupil to 1 teacher ratio district-wide, though the District's agents consistently indicated that such loading would not be acceptable to the area's residents. The Board feels that the maximum acceptable enrollment for current facilities is nearer 4,500 than the 5,408.

2. Double sessions, listed as a mitigation measure in the Statement, are not acceptable to the community, which has indicated its dissatisfaction by voting both bonds and override taxes to prevent double sessions.

3. The District is left with two alternatives--a compulsory year-round multi-track operation which requires an affirmative vote of the electorate, or construction of new facilities to house additional pupils. In post-Proposition 13 California, there is no viable mechanism for the funding of construction of schools. Bonds may be voted, but they must be paid within the $4 maximum tax rate, thus seriously reducing the District's operating funds. The recent Gann Initiative and Jarvis II will further aggravate the funding problem.

The Statement is silent on where funds to construct new facilities will be derived, should the electorate not approve year-round operation, or once the additional capacity which year-round operation provides is exceeded. The final Environmental Impact Statement should address the issue carefully.

Sincerely,

AMagliari

Anthony J. Magliari
Superintendent

18

(HE-151) 7

CARSON RIVER BASIN
COUNCIL OF GOVERNMENTS

CARSON CITY • CHURCHILL • DOUGLAS • LYON & STOREY COUNTIES
MAILING ADDRESS: P.O. Box 1927, Carson City, NV 89701 Ph. 885-4680

.E.P.A.
GION 9
MM CNTR
JAN 21 3 03 PM '80

January 17, 1980

Janet Rosati
U S Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, California 94105

Re; Draft EIS, Proposed Wastewater Treatment Facilities,
South Shore, Lake Tahoe Basin

Dear Ms. Rosati,

This agency did not receive an "executive summary" of the EIS. Please send one to COG at your earliest convenience.

The comments I have to offer are restricted to pgs. 236-238 of the main draft.

Statements appearing in the second to the last paragraph on page 236 and in the fourth paragraph on page 238 are not entirely correct and the following considerations are offered for your review.

Page 236. In comparing the EIS information presented with Table 59, Summary of Extimated Existing Carson Valley Mass Loadings on an Annual Basis (Phase II, Carson 208 Plan) I find the EIS projecting an incomplete statement regarding the actual quality of water before and after agricultural impact. My opinion rests on the relative amounts of materials carried by the River upon entering Carson Valley and that attributed to agriculturial activity from Valley operations. Succinctly stated, if the EIS finds that "the quality of surface waters in the Upper Carson River Basin (above Carson Valley?) is generally excellent", then by relative comparison with Table 59 the increases in loading from irrigation (nonpoint agricultural sources) must also be considered not as villainous as presented in the EIS. Increase in loadings from agriculture match loadings carried by the river prior to irrigation diversions. I am not suggesting that agriculture is not a significant contributor of pollutants, nor am I addressing the concentration aspects. But in terms of annual loadings the draft seems to take a predetermined negative position. I believe you have heard this type of

BOARD OF DIRECTORS
Dan Hickey, chm. Commissioner Douglas County
Jack Warnecke Supervisor Carson City
Bill Lee Commissioner Churchill County
John McNown Commissioner Lyon County
Robert Berry Commissioner Storey County

EXECUTIVE SECRETARY
Robert Sulliv

comment before from Douglas County officials.

I am pleased to be able to add that the Carson 208 did not shy away from the agricultural problem as did so many other 208 programs. With the aid of federal and local agencies, valley specific BMP and Specifications manuals were produced, the intent being to be extremely competitive for any rural (agriculture) pollution abatement funds that might arise.

You may also recall that under the EPA-USDA Model Implementation Program, the proposal submitted by Carson Valley water/agricultural interests and COG was chosen by EPA Region IX as your priority project in national competition. (If there had been adequate follow-thru by Region IX staff with Washington D.C. programers during a Christmas season, a national selection would probably have been gained.)

What I am continuing to say is that the EIS does not reflect upon past attempts or achievements at the local level to deal with the pollution abatement problems.

Page 238. The statement on groundwater impacts is far too generalized. Vertical and horizontal movement of groundwater is a complex issue far beyond the financial abilities of the 208 to analyze. (Please note that efforts in this area have since begun, sponsored by local government.) Chapter K of the 208 Phase II Report is where this subject is addressed. See page K-4 for a partial insight to our reasoning and necessary assumptions.

Sincerely,

Robert T Sullivan

Robert T. Sullivan
Executive Secretary

cc: Bob Hadfield, Douglas County Manager

RTS:lhw

(HE-158) 8

SOUTH TAHOE
PUBLIC UTILITY DISTRICT

P.O. Box AU South Lake Tahoe, California 95705 · Phone (916) 544-6474

PRESIDENT
Lorrene Kashuba

DIRECTORS
Francis J. Cocking
Raymond A. Fieldcamp
James R. Jones
Walter "Neal" Olson

RECEIVED
REGION IX
JAN 23 10 25 AM '80

January 21, 1980

Mr. Paul DeFalco, Jr.
Regional Administrator
U. S. Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, Ca. 94105

RE:
DRAFT E I S
SOUTH TAHOE PUBLIC UTILITY DISTRICT
DOUGLAS COUNTY SEWER IMPROVEMENT DISTRICT
NO. 1
PROPOSED WASTEWATER TREATMENT FACILITIES

Dear Mr. DeFalco:

The South Tahoe Public Utility District is requesting approximately $18 million in Federal Grants and $3 million in State Grants for the modifications and expansion of the wastewater treatment and disposal system to a peak day capacity of 10 million gallons.

The EPA has prepared a Draft Environmental Impact Statement (DEIS) in which the EPA recommends that the South Tahoe Public Utility District improve certain wastewater treatment processes of the existing plant and abandon most of the advanced wastewater treatment facilities and that land application of the treated sewage be undertaken. After the South Tahoe Public Utility District has negotiated a specific disposal site, the EPA will examine the environmental consequences and make its recommendation.

The Draft EIS includes the identification of environmental degradation associated with growth and the EPA states that it is South Tahoe Public Utility District's responsibility to obtain commitments from various local, state, and federal agencies with authority to implement the mitigation measures and to demonstrate to EPA that there will be no deterioration of environmental quality. 21

The Utility District is working very hard to obtain commitments for mitigation measures from local governments and responsible agencies. The commitments will provide a strong positive approach to solving the environmental impacts of the proposed 10 mgd sewage treatment plant. We will report to the EPA by February 22, 1980 on the mitigation measures program. We offer the following comments on our review of the technical studies reported in the DEIS.

COMMENTS ON TECHNICAL EVALUATION DEIS

The DEIS provides a good analysis of environmental problems associated with development at Lake Tahoe. Although we have problems and disagreements with some of the assumption and evaluation, on balance we concur with the findings of environmental concerns.

We believe that the DEIS falls short in the proper evaluation of the probable consequences of inadequate sewer capacity. Specific comments on these areas of concern are presented in the following paragraphs.

KEY ASSUMPTION - GROWTH RELATED TO SEWER CAPACITY

We do not agree with this assumption. Limitation of sewer capacity will not control growth. Even though restrictions are placed on the construction of new dwelling units, the population will increase due to increased occupancy rates with resultant increased flows to the sewer plant.

KEY ASSUMPTION - BASE LINE CASINO DEVELOPMENT (Pg. 30 DEIS)

The basic premise in the development of the five scenarios was the level of casino development. Casino activity of 190,000 square feet is shown for scenarios 1, 2 and 3. The Lake Tahoe Environmental Assessment Report prepared by the Western Regional Council Interagency Task Force reported on page 69 that as of 1978 there were 221,300 square feet of gaming floor space at the South Shore in six casinos. Therefore, the pressure on development and loads on the wastewater treatment facilities are greater than was assumed for scenarios 1 and 2. Scenario No. 3 may be the minimum level of development which should be considered in the determination of treatment plant capacities.

KEY ASSUMPTION - SPILLOVER GROWTH (Pg. 31 DEIS)

Table 8 on page 31 indicates new housing units outside the Tahoe Basin for senarios 1, 2 and 3 of 1340, 1080, and 2250 respectively. On page 13 of the Executive Summary Lake Tahoe Environmental Assessment is the following statement:

> "Housing demand is now so great that at least 3500 housing units outside of the Basin have been constructed in response to needs within the Basin"------

The spillover growth has been understated in the DEIS. There has been no attempt to evaluate whether the Carson Valley or Diamond Valley can accommodate this spillover growth. There has not been an evaluation of impact on the sewer plant of these people who work in the Basin and live in the Carson Valley or Diamond Valley.

KEY ASSUMPTION - SEWER UNITS PER RESIDENT (Pg. 201 DEIS)

It is stated that in 1978 there were 3.0 sewer units per resident and a value of 3.2 sewer units/resident was used in the evaluation of scenarios. The South Tahoe Public Utility District Audit Report includes the following information on sewer units per resident.

Audit Report	Sewer Connections (Residences)	Sewer Units	Sewer Units / Connection
6/30/79	12,317	38,152	3.098
6/30/78	11,945	36,974	3.095
6/30/77	11,291	34,948	3.095
6/30/76	10,237	31,652	3.092
6/30/75	9,279	28,658	3.088
6/30/74	8,401	25,897	3.083
6/30/73	7,560	23,273	3.078
6/30/72	6,888	21,191	3.077
6/30/71	6,248	19,048	3.049
6/30/70	4,832	13,212	2.734

If no new dwelling units were allowed, due to limited sewer capacity, we would believe that the relationship between sewer connections and flow per connection would change to a level higher than 3.2 sewer units per connection.

KEY ASSUMPTION BASE LINE TREATMENT CAPACITY

We disagree with the 1978 sewer capacity requirement shown in the table on page 200. A capacity requirement of 64,485 sewer units is indicated as the 1978 condition. Based upon the Utility District's June 30, 1978 Audit Report, the table should be modified as follows:

	1978
Number of Sewer Units	
Housing	
South Tahoe Public Utility District	49,042
Hotel/Motel	
South Tahoe Public Utility District	9,330
Commercial	
South Tahoe Public Utility District	5,200
Campsites (Trailer Parks)	
South Tahoe Public Utility District	2,541*
TOTAL	
South Tahoe Public Utility District	66,113
Plant Capacity Required in MGD (Max. Day)	
South Tahoe Public Utility District	5.95
Reserve Capacity	.36
TOTAL	6.31

*1651 sewer units for trailer parks and 890 sewer units for campsites.

We note that on December 31, 1978 the inflow to the wastewater treatment plant was measured at 5.9 million gallons. A value of 6.31 mgd should be utilized as Base Line Capacity.

COST TO USERS OF IMPLEMENTATION OF PLANT EXPANSION (Pg. 203 DEIS)

We disagree with the evaluation of costs. Only $8.9 million is shown as the cost of scenarios 1 and 4. The $8.9 millionn was the requested plant Headstart Improvements, which would be independent of final selection of method of treatment and disposal or capacity. The District would not meet the 1982 Waste Discharge Requirements established by the Lahontan Regional Water Quality Control Board with the $8.9 million improvements.

Based upon the information included in the Facility Plan for the cost of Alternative 3b, Agricultural Reuse of Secondary Effluent in the Carson River Basin in California, the estimated cost of the scenarios is as follows:

	GROWTH SCENARIOS				
	1	2	3	4	5
Plant Capacity (mgd)	7.27	9.85	8.70	7.24	10.03
Capital Cost ($Millions)	$18.2	$21.3	$19.9	$18.2	$21.5
Annual O & M ($Millions)	1.8	2.1	1.9	1.8	2.1
Bond Debt ($Million/yr)	1.7	2.0	1.9	1.7	2.0
Total Annual Cost ($Million)	3.5	4.1	3.8	3.5	4.1
SEWER UNITS (000's)					
Start	66.1	66.1	66.1	66.1	66.1
End	76.7	105.4	92.7	76.5	107.4
Av	71.4	85.8	79.4	71.3	86.8
$/Av SEWER UNITS	$ 49.02	47.79	47.86	49.09	47.24
Av. Annual Cost @73.2 SU/SFDU	$157	153	153	157	151
If 87.5% Grants Available for Capital Costs :					
Annual O & M Costs ($Millions)	1.8	2.1	1.9	1.8	2.1
Bond Debt ($Million)	0.2	0.3	0.2	0.2	0.3
Total Annual Cost ($Millions)	2.0	2.4	2.1	2.0	2.4
Av. Sewer Units (000's)	71.4	85.8	79.4	71.3	86.8
Av. Annual Cost $	90	90	85	90	88

The paragraph on page 204 DEIS on "Critical Implications of Plant Expansion" should read as follows:

Construction of additional treatment capacity would be required for all levels of growth projection. The amount charged to users of the facility would be about the same under all scenarios. If no capacity expansion is made, capital expenditures of about $18 million will be required to meet waste discharge require- 25 ments established by the EPA and the State of California.

IMPACT ASSESSMENT WATER SUPPLY (Pg. 197 DEIS)

We question the assumptions made in the evaluation of the impact assessments on water supply.

The first assumption that we question is that the limitation on water supply would be established at 12,000 acre feet per year. In 1977 the water use in the South Tahoe Public Utility District area was estimated at about 7,200 acre feet out of a total of 11,000 acre feet total water use on the California side. Thus, about 65% of the California water use was within the South Tahoe Public Utility District service area. If 65% of the 23,000 acre feet allocated to California were to be assigned to the South Tahoe Public Utility District service area, then the water supply limitation would be about 15,000 acre feet per year.

The second area that we question is the projection of water use under the five scenarios. Presented in the following tabulation is our projection of water use.

		Scenarios				
ITEM	1978	1	2	3	4	5
Sewer Flows[1]						
Plant Capacity (Max Day MGD)	5.8	6.91	9.49	8.34	6.88	9.67
Average Day (MG)[2]	3.9	4.6	6.3	5.6	4.6	6.4
AF/yr	4,400	5,200	7,100	6,300	5,200	7,200
Water Supply (AF/Yr)[3]	8,000	9,500	12,900	11,500	9,500	13,100
Water Supply (EIS)	8,000	9,500	14,850	12,180	9,460	15,120

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[1] Pg. 200 EIS

[2] Ratio Max Day to Average Days = 1.5

[3] Ration Sewer Flow/Water Supply = 0.55

We believe that the ratio of wastewater flows to water supply will be about the same for all levels of growth. We do not believe that water supply will be a growth limiting resource within the South Tahoe Public Utility District service area.

INCREASED SEWER FLOWS DUE TO INCREASED ROOM OCCUPANCY RATES

In an inspection of Tables A-4 through A-9 and Table A-14 in the Technical Appendix, we find that the visitors per hotel/motel room are assumed to increase under Scenario 2 from a present peak day ratio of 3.1 visitors per room to a year 1990 ratio of 3.4 visitors per day. We believe that if there is no expansion of the sewer plant and therefore no new hotel/motel facilities that the peak day ratio of visitors per room will increase to a similar level and therefore Scenarios 1, 3, 4 and 5 should also be evaluated on the basis of 3.4 visitors/room. We would then suggest that this increased occupancy rate should be reflected in a increased loading on the sewer plant. We estimate the increased loading on the sewer plant as follows:

SCENARIO (2000)

	1	2	3	4	5
Visitor (A-4 to A-9)	26100	32450	31750	26100	34500
Hotel/Motel Rooms (A-14)	8450	9570	10330	8450	11250
Visitors/Room	3.09	3.39	3.07	3.09	3.07
Increased Visitors @ 3.4 Visitors/Room	2630	88	3372	2630	3750
Sewer Units (Pg 200 DEIS)	9295	10527	11363	9295	12375
Adjusted Sewer Units*	10228	10558	12585	10228	13705
Δ Sewer Units	933	31	1222	933	1330
Increased Flow at 90 Gal/SU/Day (MGD)	0.08	—	0.11	0.08	0.12

* Increased by ratio 3.4/(Assumed visitors/room)
Example Scenario = $9295 \left(\frac{3.4}{3.09}\right) = 10228$ Sewer Units

INCREASED SEWER FLOW DUE TO INCREASED POPULATION

We question the estimates of sewer capacity requirements for the growth scenarios. We do not believe that there has been adequate consideration of the impact on the sewer plant of day visitors and campers. There was no consideration of reserve sewer capacity to treat wastewater returned from the emergency holding pond. We believe that a minimum treatment capacity of 0.5 MGD should be provided for retreatment of emergency pond waters.

Presented in the following tabulation is a comparison of increased sewer capacity and population estimates for the five scenarios.

SCENARIO

	1	2	3	4	5
Sewer Capacity	18	60	41	18	63
Population (Peak Day)					
Residents	9	36	27	7	46
Total Overnight Visitors	16	62	43	18	63
Day Use	24	49	49	51	60
Campers	45	61	61	61	61

NEED FOR ADEQUATE SEWER CAPACITY

During the past ten year period the Utility District has protected the lake from the impact of the disposal of wastewater through the collection, treatment and export outside of the basin of the wastewater generated within the District's service area. Approximately $6.1 million in Federal Grants and Appropriations were made available for the construction of the treatment and disposal system. $1.2 million was made available to the District from a State Loan Program. The District expended approximately $10.7 million as the local share of the construction costs. During the past ten year period, the District has expended over $20 million in operation and maintenance of the sewer system. This has been a very heavy local cost burden on a community the size of South Tahoe. The costs were met, however, and the lake has been protected because of the existence of adequate treatment and disposal capacity.

We are concerned that the EPA has not fully considered the problems of inadequate sewer capacity. No mention is made in the DEIS of the need for treatment capacity to treat waters returned from the emergency holding pond or the need of sewer capacity to serve public projects such as the proposed community college which has just purchased land for new facilities. There is also no mention in the DEIS of the five to six year lead time necessary to accomplish an expansion of the treatment and disposal facilities and the need for adequate capacity to provide for this expansion implementation period.

Problems encountered during the storm of January 10-11, 1980 should be a warning to all of us that the sewage plant must be capable of handling flows beyond the present capability of the treatment facility. We need not only the plant reliability feature of the approved "Headstart Program" - we need expanded treatment facilities such as a new primary sedimentation basin which was not approved for Headstart because of concern that it would expand the plant capacity and therefore would cause growth. Mother Nature takes no stock in what is or isn't growth inducing.

We ask that you consider these very real needs for expanded sewage capacity. We must solve the growth issues by direct action programs such as the purchase of vacant lots. We will not solve the growth problems through the expenditure of over $20 million to construct inadequate sewage treatment facilities.

DISPOSAL ALTERNATIVE

The DEIS does not evaluate the impacts of the disposal of the treated wastewater. The District has selected Alternative 3 b, as previously recommended in the Facility Plan, but with the addition of plain filtration of secondary wastewater. We ask the EPA to identify for the District the additional information needed by EPA to enable the EPA to examine the environmental consequences and make a recommendation on funding.

SUMMARY

The South Tahoe Public Utility District believes that the DEIS provides useful information on the impacts to Lake Tahoe of growth. We believe that the DEIS is insufficient in the identification of the impacts of inadequate sewage capacity and in the assessment of needed sewer capacity for the five growth scenarios evaluated.

The EPA must take a responsible position in the approval of funding of adequate sewage capacity. We ask that you make an early decision so that we can proceed with construction of the needed facilities.

The South Tahoe Public Utility District is working very hard to respond to the mitigation measures commitments from various local, state and federal agencies. We hope to respond on the commitments by February 22, 1980.

Very truly yours,

SOUTH TAHOE PUBLIC UTILITY DISTRICT

James R. Cofer

James R. Cofer
Manager/District Engineer

JRC:mda

(HE-15b) 9

Edmund G. Brown Jr.,
~~[illegible]~~, Governor

STATE OF CALIFORNIA—RESOURCES AGENCY

DEPARTMENT ~~[illegible]~~
DIVISION OF FORESTRY
2840 Mt. Danaher Road
Camino, CA 95709
(916) 644-2345

RECEIVED
REGION IX
JAN 25 10 27 AM '80

January 23, 1980

Re: 0900 ENVIRONMENTAL PROTECTION
Wastewater Treatment Facil.
S. Shore, Lake Tahoe Basin

Environmental Protection Agency
215 Fremont Street
San Francisco, CA 94105

Gentlemen:

I have reviewed the Draft Environmental Impact Statement for the Proposed Wastewater Treatment Facilities, South Shore, Lake Tahoe Basin, and have the following comments.

As a Forester employed by the California Department of Forestry which has legal authority under the State Forest Practice Act for regulation of timber harvesting on non-federal timberland, I find the minimal reference to forested land management a major omission. An expansion of the wastewater treatment facilities would probably create additional pressure on those lands zoned by TRPA and CTPRA as General Forest for urban development. In my viewpoint, this would have several effects which should be spoken to in the EIS.

Urban development in these General Forest lands would remove those lands from the availability for timberland management, which includes cellulose production, esthetics, wildlife and high quality water. A considerable portion of the presently undeveloped privately-owned land is within this General Forest zone classification. Commercial timber harvesting is presently allowed under relatively stringent permit requirements. Several Agencies have concurrent authority over any one harvesting operation (CDF, TRPA, CTRPA and LRWCB) and develop requirements for an operation with a primary goal of reducing erosion as nearly as possible to natural geologic erosion rates. Generally, the long term erosion rates following timber harvest are less than those resulting from urban development.

Considering the above discussion, this aspect of activities in the Basin which will be increased or decreased, depending on wastewater disposal capacities, should be spoken to as a part of the final Environmental Impact Statement.

Sincerely,

JAMES F. SIMMONS, State Forest Ranger

R J Hubbell

By: Robert J. Hubbell, Area Forester

RJH:os

CONSERVATION IS WISE USE—KEEP CALIFORNIA GREEN AND GOLDEN

(HE-158) 10

U.S.E.P.A.
REGION 9
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JAN 28 10 38 AM '80

EPA
Attn: Hearing Office
HE 158 Region IX
215 Fremont St.
San Francisco, CA
94105

[redacted]

P.O. Box 8306 So. Lake Tahoe, CA
95731

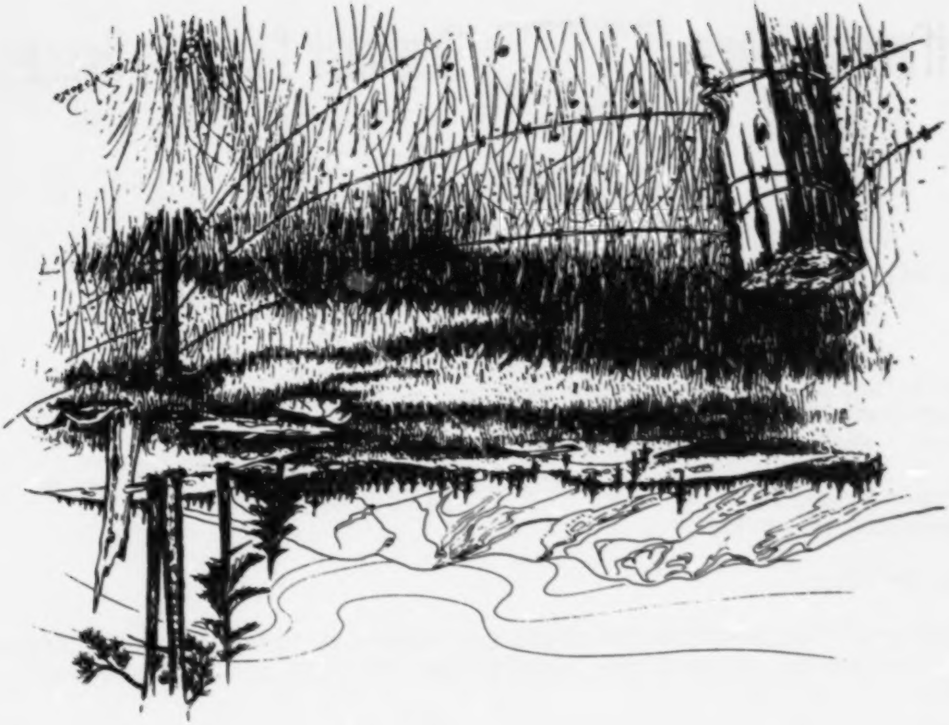
EPA -

The draft EIS contains some useful information but the evaluations are generally inadequate.

Many of the EPA assumptions are questionable at best and horrendously wrong at worst.

There are too many miscalculations included in the EIS from which erroneous conclusions have been drawn.

As a 25 year resident of this community I say this: Growth



or no growth from this day forward, we must have our sewage plant updated in order to prevent future incidents such as occurred during our recent storms. We who live here CARE deeply!! Please remember that when our plant was built it was considered the finest in the world. We want it to be so again. Don't you?

Sincerely,

Neva Roberts

Tallac Meadow — Lake Tahoe

Tallac Meadow is nature's own carpet,
In threads spun of silver and gold;
A place to reflect on earth's story,
A changing tale ever retold.

Neva Roberts

Lithographed by Anchor Printing, South Lake Tahoe, Ca. 95731©

California Tahoe Regional Planning Agency (HE-158) 11
916/541-6770
P.O. Box 14467 So. Lake Tahoe, CA 95702

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CONT. DATE
JAN 28 12 [illegible]

January 24, 1980

Paul De Falco, Jr., Regional Administrator
U.S. Environmental Protection Agency
Attention: Hearing Office, HE-158
Region IX
215 Fremont Street
San Francisco, CA 94105

Dear Mr. De Falco:

The CTRPA staff has reviewed the Draft Environmental Impact Statement prepared by EPA. Our review included the Summary, the full EIS and its Technical Appendix.

The basic test of this document is its adequacy under NEPA guidelines. These guidelines demand that issues be sharply defined, all reasonable alternatives be explored, and that a "no action" alternative be included in the EIS. The EIS meets none of these tests.

(1) The report lacks clarity.

(2) A rigid adherance to the expansion proposals suggested by the two sewer districts prevents any exploration of realistic or environmentally responsive alternatives.

(3) There is no "no project" alternative.

Clarity

At the onset we should admit to confusion over what the document is saying. The report lacks cohesion and organization. It is difficult to read and understand, even for technical people with experience in reviewing such studies.

The clarity issue is more than just bad writing. There is a discontinuity between the technical appendices and the main report, between the report and the abreviated summary and within the report itself. Typically, one would expect the appendices to be the repository of the technical detail underlying the study. Apparently this is not the case for these reports. Instead, the appendices contain the remmanents of analytic work that, we are told, was abaondoned a year ago when the focus of the EIS was narrowed. The principle that guided this narrowing was reported to be an abandonment of environmental topics for which federal standards were lacking or where it was felt that other federal agencies had primary jurisdiction. Because of this, the detailed investigations of transportation problems and air pollution impacts were dropped at mid-point and cruder methods substituted. While we agree with many of the report's statements about the impacts of growth, we are troubled that the technical substantiaion for so much of the report is not apparent. We should note that the treatment of water quality issues appears to be an exception, and of course, this is a critical issue at Tahoe. But there are other issues - air quality, transportation, recreational experiences, and the extent of Basin urbanization that are of similar significance. We do not believe it was appropriate to give superficial treatment to these issues.

Lack of Environmentally Responsible Alternatives

The decision to piggyback the EIS onto other study efforts may have economized the study, but it removed still other issues that are greatly in need of examination. Further, we do not believe it correct to produce an EIS that incorporates the environmental assessments prepared by others. The EIS rather clearly throws the material prepared by the utility districts into question. The prime example here is the EIS proposal that no development be permitted on the 4000 lots in stream zones. Our Agency has reached this same conclusion. But such a "mitigation" undoes a major part of the "demand" for plant expansion. There are 4000 less customers. There is no follow-through on this, even though there is an obvious contradiction between the capacity figures supplied by the district and the reductions dictated by environmental considerations. EPA rather clearly has attempted to carve off less than a whole serving of the NEPA requirements for its impact study. This has blinded the study to critical environmental problems. It has prevented the sort of testing of plans that is the fundamental reason there are requirements to study their environmental effects. The studies should influence project design as well.

The "No-Project" Alternative is Missing

A "no-project" alternative is conspicuously lacking. Given the recent failure of the STPUD plant during heavy rains, it is apparent that the present plant and collection system need improvement. It is also apparent that there are substantial infiltration problems which need to be considered along with capacity. Infiltrations of this magnitude at a time of low service demand imply a corresponding exfiltration problem. This is a real threat to the water quality of Lake Tahoe.

We feel it essential that the EIS look seriously at the prospect of public purchase of development rights as an alternative to plant expansion. What is really demanded in a document such as this is an honest, detailed, responsible analysis of the cost/benefit implications of continued federal subsidies to growth at Tahoe. To do that there must be consideration of the relative cost/benefit factors in spending the same amount of money (plus the value of other public costs likewise supporting the growth), on outright purchase. Whether or not such "buy-outs" are economically feasible is not the point. The point is that, considering State and Federal policy that supports public acquisition of Tahoe lands, there must be a detailed analysis of such an alternative: buying land instead of subsidising its development. This is certainly the best alternative as far as environmental protection is concerned. It is a violation of NEPA guidelines to not explore such alternatives.

What is the Housing Problem?

We question the study's assumption that there is an undersupply of housing at Tahoe, that "the supply of housing has lagged far behind demand" (p. 22). This is evidence of a misreading of the nature of the housing market at Tahoe.

The Tahoe housing market is largely speculative in nature. There is a high demand for houses to sell or trade but demand does not translate demand for units needed to shelter families. There are a lot of vacant houses at Tahoe. Much of the demand for new sewer units is purely speculative. Last year 239 sewer permits were issued for residential units in the jurisdiction of the South Tahoe Public Utility District. By last week, one half of these permits (113) had changed ownership even though almost none of these houses had been completed and made ready for occupancy.

The report also assumes that there is a direct relationship between employment, housing, and wastewater flows and in doing so, makes a compound analytical error. At Tahoe there isn't the expected correspondence. The high vacancy factor disrupts the match of residents and units, and this, along with significant infiltration problems, upset the relationship of units to wastewater flows.

The Environmental Assessment Report

The Interagency Task Force Study described the effects of Federal expenditures on sewer treatment facilities within the basin. It was constructed from the same data base as the EIS. The basic assumption made in this other study is, that Federal expenditures facilitate added growth in a broad spectrum of activities including residential construction, recreational activity and gaming. The Assessment Study adopts a position which seems reasonable and which we would urge on the EPA. It assumes that one does not simply start with a demand and scale a plant to meet this, but rather that the very investment in the improvements contributes to an expansion of demand.

Mitigations Cannot Be Guaranteed

The mitigation measures recommended are often vague, politically questionable and/or out of the realm of control by EPA or the sewer districts. We question whether or not they could ever be implemented within the time frame alloted for project review. The principals have no statutory authority to take actions that are necessary to mitigate impacts nor, in the current or foreseeable political climate, are they likely to gain such authority. In many cases local governments have been long aware of the problems described in the report and have found it impossible to act. To us, it is ominous that the enlargement of the treatment plants has been described as a necessary safety or reliability measure. Local policy has been to over-commit whatever capacity they are given. If reliability were really the concern, why didn't local governments stop granting new connections when it became obvious that their plant capacities were approaching their limits.

The CTRPA Response

My Agency has specific tests that must be met before it can grant approvals to any project (this includes all public works projects in the California side of the basin). We see that our Agency is charged with carrying out many of the mitigation actions called for in the report. This Agency has no commitment whatever to an expansion of sewer plant capacity.

Population figures used in the report are identified as coming from CTRPA sources. They do, but what is not said is that the Agency has recognized that these numbers, developed hastily for the 1975 plan, are far too high. In 1978 we reviewed these figures and the past year we have been working on a plan update that projects significantly lower populations. This is in recognition of the unacceptable environmental costs of the growth levels portrayed in the 1975 plan and which is reflected in the expansion scenarios. These costs are abundantly described in the EIS even though the documents fall short of covering all of them. When we add in the costs of traffic congestion and air pollution it seems obvious that proceeding into studies of mitigation is an act of environmental folly.

The EIS findings, even in their present half-stated form, test the basic premises of the "growth scenario" supplied by the utility districts. They won't work. The plans can't proceed without bringing about unacceptable environmental damage. The EIS studies should point to what will work for Tahoe rather than trying to excuse what won't work.

Sincerely,

David T. Dubbink
Executive Officer

DTD/mnm

enclosures

California Tahoe Regional Planning Agency

916/541-6770

P.O. Box 14467 So. Lake Tahoe, CA 95702

Attached are additional specific comments.

Specific Comments

Page 1	There are more solutions than expanding plant capacity that should be considered. Designating Tahoe as a National Recreation Area and stepped-up land acquisition are two solutions that must be considered.
Page 2 para. 1, last sent.	If DCSID does not request expansion beyond 3.0 MGD then why are alternatives up to 6.6 MGD considered? (See chart, page 4.).
Page 5 para. 4	If development "...may not follow past trends.", and if the number of lots that can be built are reduced then why is the 10 MGD plant capacity being considered? The EPA should state whether or not they are going to require that fragile areas not be developed. If EPA intends to not permit development of the approximately 4000 lots in stream environment zones, then a 10 MGD plant would allow development beyond the areas already subdivided. The EIS fails to address the impacts of allowing such growth.
Page 7	Housing. One other possible effect is a shift in the amount of second home units. Given the appeal of high rents, some second homes may become rental units serving local residents. The result would be less spillover into Alpine and Carson.
Page 9 para. 1	Fiscal concerns - more growth will not be shifted to Nevada with expansion because California has more vacant lots.
Page 9 para. 3	Property owners will not necessarily "lose their investment" with no sewer expansion. Compensation is one means of avoiding this potential problem. Besides, does government have to guarantee that income is earned from property? What increment of the "investment" is expection only?
Page 14 para. 2	In light of LTEAP study, is it possible that there will be "...no deterioration of environmental quality"? Besides, if all mitigation is implemented there is no need for a 10 MGD plant. Where is the evidence to support the position that the mitigation will be adequate?
Page 15	The Threshold Study states that thresholds of some carrying capacity components have already been exceeded. How do you mitigate impacts of components where capacities have already been exceeded? CTRPA does not have authority to purchase lots as stated in Table 4. Why aren't transportation and public service facilities addressed in Table 4?
Page 19 para. 3	NEPA requires consideration of all effects. Discussion cannot be limited to indirect effects and cannot exclude effects on traffic and air quality.
Page 20	Where are goals for transportation/mobiltiy?
Page 33	A very significant factor is the assumption that 5 percent of the spillover could go to Alpine County, California's least populated county. Under "Scenario 5" the "Peak Day Population" of Alpine could increase by almost 8,000 persons (this is assuming that Alpine offers the same attractions as the CA side of the Tahoe Basin). Even under the lowest growth scenario Alpine could expect large increases in peak day (40,850 x .05 = 2,044.5)

Perhaps more realisticly the "resident population" (which is what the report really means to suggest will "spillover") Alpine County could increase by 1,221 persons under "Scenario 5" and 221.5 persons under "Scenario 1." Considering the current population of Alpine, even the low growth projection constitutes a large increase.

Where is the analysis of the environmental impacts on California's most rural county?

Page 49	The No-Project alternative must be discussed. The reasons for not discussing this alternative are very weak. We do not accept the connection presented between quality and flows. Capacity does not have to be increased to maintain quality. There is no requirement for increasing flows. (STPUD could ban new connections.)
Page 76 para. 1 last sent.	Algal growth will continue if more construction is allowed. Development of 10,000 lots in STPUD will have significant impacts on environmental quality, particularly water quality. (See Draft 208 Report.)
Page 82 para. 3	We do not believe that solutions can be engineered to mitigate problems of site development in high hazard lands. As the 208 Report states, a prohibition is the only way to protect these areas.
Page 102 last para.	This statement on the CTRPA suit ignores the implications of the Airline Degradation Act of 1978 which states that interstate carriers do not have to comply to local or state law, except those imposed by airports.
Page 103	The EIS should include a detailed cost/benefit analysis of the cost of compensating lot owners versus the cost of sewer expansion, including direct and indirect costs.
Page 134 and 135	These tables are unclear. They seem to imply that those items "A" - adopted, have been implemented. For example, CTRPA is shown to have "adopted" mail delivery. What does this mean?
Page 153 para. 3	Potential liability should be much higher than $36 million. It is extremely difficult to estimate liability but an example of how low this figure is that one class action suite alone (Jones vs. TRPA & CTRPA) seeks $100 million.
Page 155 para 4.	The comment about CTRPA's 85 percent buildout rule is wrong. The rule does not "preclude use of developement control techniques such as clustered housing units and transfer of density rights that would mitigate various environmental and economic problems..." On the contrary, CTRPA policy supports such considerations. It is basin-wide density we seek to limit.
para 6.	It is not at all true that "Residential buildout would result in more compact development" in Nevada than in California. Development in Nevada would (and has been) more dense. There is a vast distinction between density and compactness. The EIS must made the distinction. Using the same overall density and allowing for density transfer (as could occur under CTRPA policy) residential development could be more "compact" in California.
Page 156 para. 6	Douglas County's share of residential construction will lessen as STPUD expands. The reason Douglas County has received a larger share is that sewer constraints exist in STPUD.

Page 164 There are no real "losses" of income because of lower growth levels. There are reductions of expected profits. There is a reduced speculatve market and the probability of shift to a less speculative one. Compensation for "lowered expectations" may be asuitable political response to an artifically stimulated housing demand. But the impetus should arise in the political realm not the bureaucratic and especially not in a document that proports to be an environmental analysis. It is okay for EPA to recognize the phenomenon (that losses of expectations are perceived as losses of actual income), but it is not legitimate to propose mitigation of nonexistant impacts.

FUNCTIONAL PLANT CAPACITY

There appears to be no adequate consideration of water conservation or whether the functional capacity of the plant is actually hydrolic or chemical. The assumption must be that it is hydrolic since the mgd figure is consistently used. Using that assumption, water conservation could easily raise the functional capacity of the plant well beyond what the environmental analyses have considered. There is no analysis of this possibility. Conversely, continued poor maintenance of collection lines and natural deterioration of these lines will assure increased infiltration which could result in reaching hydrolic capacity well before the expected limit of functional capacity. There is inadequate consideration of this possibility in the EIS.

**Advisory
Council On
Historic
Preservation**

1522 K Street NW.
Washington D.C.
20005

**Reply to: P. O. Box 25085
Denver, Colorado 80225**

**This response does not constitute
Council comment pursuant to
Section 106 of the National Historic
Preservation Act, nor Section 2(b)
of Executive Order 11593.**

(HE-158)12

January 9, 1980

Ms. Janet Rosati
U.S. Environmental Protection Agency
215 Fremont Street
San Francisco, California 94105

Dear Ms. Rosati:

This is to acknowledge receipt of the draft environmental statement for the South Tahoe Public Utilities District and Douglas County Sewer Improvement District No. 1 proposed Wastewater Treatment Facilities, California and Nevada, on December 6, 1979. We regret that we will be unable to review and comment on this document in a timely manner pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969.

Nevertheless, the Environmental Protection Agency is reminded that, if the proposed undertaking will affect properties included in or eligible for inclusion in the National Register of Historic Places, it is required by Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. Sec. 470f, as amended, 90 Stat. 1320) to afford the Council an opportunity to comment on the undertaking prior to the approval of the expenditure of any Federal funds or prior to the issuance of any license. The Council's regulations, "Protection of Historic and Cultural Properties" (36 CFR Part 800.4) detail the steps an agency is to follow in requesting Council comment.

Generally, the Council considers environmental evaluations to be adequate when they contain evidence of compliance with Section 106 of the National Historic Preservation Act, as amended. The environmental documentation must demonstrate that either of the following conditions exists:

1. No properties included in or that may be eligible for inclusion in the National Register are located within the area of environmental impact, and the undertaking will not affect any such property. In making this determination, the Council requires:

--evidence that the agency has consulted the latest edition of the National Register (Federal Register, February 6, 1979, and its monthly supplements);

--evidence of an effort to ensure the identification of properties eligible for inclusion in the National Register, including evidence of contact with the State Historic Preservation Officer, whose comments should be included in the final environmental statement.

2. Properties included in or that may be eligible for inclusion in the National Register are located within the area of environmental impact, and the undertaking will or will not affect any such property. In cases where there will be an effect, the final environmental statement should contain evidence of compliance with Section 106 of the National Historic Preservation Act through the Council's regulations, "Protection of Historic and Cultural Properties" (36 CFR Part 800).

Should you have any questions, please call Mrs. Jane King at (303) 234-4946, an FTS number.

Sincerely,

Louis S. Wall
Chief, Western Division
of Project Review

State of California **State Lands Commission**

Memorandum

(HE-158) 13

To : Huey D. Johnson
Secretary for Resources
Resources Agency
1416 Ninth Street, Room 1311
Sacramento, CA 95814

Attention: James Burns

Date : January 25, 1980

File No.:

From : **EXECUTIVE OFFICE**
1807 13th Street, Sacramento 95814

Subject: Comments to Draft Environmental Impact Statement, Proposed Wastewater Treatment Facilities, South Shore, Lake Tahoe Basin
SCH #79122005

The staff of the State Lands Commission has reviewed the subject EIS. We are concerned that while the proposed project does not directly affect us, secondary impacts could result in additional development of the shorezone. These issues are either not or poorly analyzed throughout the EIS. We have addressed these shortcomings in our subsequent comments.

The assumptions upon which the impact analysis is based are not entirely supportable. For example, the EIS assumes existing casino space will not grow, yet, Harrah's is presently expanding floor space. Similarly, the assumption that growth is not constrained by environmental standards is erroneous. CTRPA land use ordinances contradict this assumption. We believe that the EIS should reflect conditions as they exist.

The EIS fails to adequately assess secondary effects. It tends to equate impacts one for one; however, secondary impacts tend to be compounding. For example, the EIS recognizes an increase in the number of people in the basin will increase the demand for transportation facilities. Yet, it does not evaluate the impacts of this increased demand. The document only suggests that the need for additional transportation can be mitigated. We suggest the EIS include analyses of secondary impacts and propose adequate mitigation for such impacts.

Entirely absent in the EIS is discussion of cumulative impacts. The analysis only suggests they might exist.

The discussion of alternatives is entirely inadequate. Alternatives to the project include more than an expansion of the facilities. Where is the "no project" alternative? Similarly, regulatory actions by other agencies do not, of themselves, suffice as adequate mitigation measures.

Our final comment pertains to the method of analysis of the impacts themselves, i.e. low, moderate, high, etc. Input to such a system tends to be rather arbitrary and provides little analysis with regard to the importance of the impacts. Further, the portrayal of any of the impacts as low or moderate needs substantial justification. We suggest there is substantial information which indicates the lake is already beyond its carrying capacity in many areas, particularly water quality and that any additional impact would compound an already highly affected environment. To quote Marc Petty, Chairman of the Tahoe Coordinating Group, Western Federal Regional Council:

> Today, the Lake Tahoe Basin can best be characterized as a system strained to the breaking point. The "urban environment" is in dire need of expansion in a number of service areas -- all of which, if satisfied, will create a new round of expansion, a new build-up of incremental needs, and more environmental degradation. As measured by Federal and state standards, little or no capacity to-absorb more degradation exists in Tahoe's air while ozone and particulate concentrations now periodically exceed Federal and state standards. Present ozone level, if sustained for long time periods, may cause damage to Tahoe's coniferous trees. In the Lake, the non-degradation requirement for waters of exceptional ecological or recreational significance has been violated, and tributary stream standards are probably exceeded. The exponential rate of increase in phytoplankton productivity in Lake Tahoe and the proliferation of periphyton in the nearshore areas of the Lake are of particular concern.

> While some types of activities (for example, gaming compared with outdoor recreation) clearly cause more environmental degradation than others, it is the growth process at Tahoe that is of paramount concern. Historically, growth has proceeded in cycles with the roles of the private sector, the Federal Government, and state and local government closely linked. Each has stimulated and accommodated the activities that, in the aggregate, cause environmental deterioration to accumulate.
>
> The Federal Government is a major actor in this growth process, but its performance is no different at Tahoe than nationwide. Each agency acts in accordance with its mission and with the National Environmental Policy Act. The environmental impacts of each individual action taken over the past 8 years were evaluated and mitigated on an individual case basis to the extent possible. Yet, Tahoe's environmental quality continues to deteriorate even as more money is spent on mitigation. The solution to one problem tended to create a whole new round of unanticipated problems.
>
> Western Federal Regional Council
> Interagency Task Force
> Lake Tahoe Environmental Assessment
> Opening Letter by Marc Petty
> December 1979

We believe that these comments more accurately reflect the current state of the Lake basin and should be seriously considered in any discussion of the merits of any expansion of sewage facilities in the Lake Tahoe Basin. Thank you for the opportunity to review the EIS.

Randall L Moory
RANDALL L. MOORY
Planning and Environmental
Coordination

RLM:js
cc: Janet Rosati
U.S. Environmental Protection Agency

(HE-158) 14

1-30-80

REC'D BY E.P.A.
REGION IX
COMM CENTER
FEB 4 12:07 PM '80

All meetings are scheduled to start at 7:30 p.m.

Those who cannot attend the meetings may submit written comments by Feb. 22 to the EPA, Attn. Hearing Office, HE-158, Region IX, 215 Fremont Street, San Francisco, Ca. 94105

Dear,

I am against sewer expansion if it means allowing for more growth at Tahoe - especially Casinos. If the expansion is needed for sanity or purity I am not against it.

Barbara Annoni
Box 702
Zephyr Cove, Nev. 89448

G. Annoni
Box 702
Zephyr Cove, Nev.
89448

(HE-158) 15

REC'D BY E.P.A.
REGION IX
COMM CENTER
FEB 4 12 33 PM '80

United States Department of Agriculture
Soil Conservation Service
2828 Chiles Road
Davis, CA
95616

January 30, 1980

Janet Rosati
U.S. Environmental Protection Agency, Region IX
215 Fremont Street
San Francisco, California 94105

Dear Ms. Rosati:

A copy of the draft environmental impact statement for the Proposed Wastewater Treatment Facilities, South Shore, Lake Tahoe Basin, was referred to the Soil Conservation Service for review and comment. We have reviewed this statement and offer the following comments.

The various alternatives presented do not clearly define the impacts, if any, on existing prime or unique agricultural land. Such impacts would include the effect of wastewater use for irrigation, as well as the effect of promoting urbanization.

The statement does not completely cover the suitability or limitation of soils for proposed action. In particular, new ponds must be properly sealed to prevent leakage in the high permeability soils and fractured bedrock.

The statement does not adequately cover the effects of wastewater discharge. Further study is needed of the use of effluent water on ranch and farm lands.

The statement does not mention the resource conservation and development (RC&D) projects in Douglas County. These will aid in reduction of sedimentation. Generally, little thought appears to have been given to the programs of Resource Conservation Districts and the Soil Conservation Service. We agree that without good conservation practices, there will be an increase in erosion and sedimentation. However, the good practices are known, but in many instances they are not being installed.

We appreciate the opportunity to comment on this proposed project.

Sincerely,

FRANCIS C. H. LUM
State Conservationist

cc: Norman A. Berg, Administrator, USDA, SCS, Washington, D. C.

(HE-158) 16

Glenbrook
Properties

February 7, 1980

Janet Rosati
Environmental Protection Agency, Region 9
215 Fremont Street
San Francisco, California 94105

Re: Draft Environmental Impact Report
Douglas County Sewer Improvement District

Dear Ms. Rosati:

The inclusion of DCSID in the above Environmental Impact Report is improper. DCSID has not requested grant funds to allow them to increase the quantity of their permitted discharge.

EPA has assumed that DCSID cannot comply with its current discharge requirements and achieve its full permitted flows. Improvements made by DCSID to the plant and to the disposal system have invalidated that assumption. The District is committed to meeting its current requirements and has the capability to continue to do so. As described in their Public Facilities Plan, their request for funds only relates to meeting the new federal discharge requirements.

The mitigating actions proposed by EPA are beyond the political, financial and legal power of the District to accomplish. In fact, the actions requested of the District have frustrated the efforts of both States and the Federal government for over ten years. Millions have been spent in studying the problems alone. To seriously suggest that accomplishing them is within the power of the sewer district brings into question both the credibility and the integrity of the Environmental Protection Agency and its consultants.

Fortunately, this kind of attempt to use the provisions of the clean water act to establish land use policy is a messy business. It is likely that the commitment of DCSID to make improvements at its own cost will result in a good record of compliance under the current discharge requirements. The District has properly fulfilled its time schedule on the Public Facilities Plan. It is highly unlikely, however, that efforts by the District alone to raise the money necessary to comply with the 1982 standards will be successfull.

In its misplaced attempt to control growth through the withholding of grant monies, the EPA risks being caught in its own trap. If the District, despite its most earnest and geniune efforts cannot comply because of lack of funds, the government will be left with few options, even if a building moratorium

20630 PATIO DRIVE CASTRO VALLEY CA 94546 / (415) 538-9600 P.O. BOX 257 GLENBROOK NEVADA 89413 / (702) 749-5292

ensues. Extending the current interim permit will defeat the objectives of the clean water act. Levying fines against the District will simply deplete the limited resources with which it currently operates. Other remedies such as disconnecting existing users are out of the question. Pursuing this course can only result in trading the credibility of your enforcement of the clean water act for a building moratorium on homes in Douglas County. It is a bizarre exchange at best.

There is, however, a comfortable solution to the problem. The willingness of the District to make improvements will effectively increase the capacity of the plant to its current permitted flow. Based upon this the EPA should find that funding the requested improvements will have no growth-inducing impact.

Precisely the opposite reaction is more likely. If the District is turned down there may be a race for building permits, just as there was when the current law suit was filed. Frightened property owners will hastily construct poorly designed homes to protect the value of their property.

I am hopeful that the EPA will be able to rise above the current level of political hysteria surrounding Lake Tahoe and focus upon the real objectives of the sewer district and the EPA's responsibilities to provide funds to aid local governments to clean up our water ways.

Cordially,

Ronald C. Nahas

RCN/ldf
cc: Paul DeFalco, Jr.

(HE-158) 17

Friends of Alpine
P.O. Box 18
Markleeville, Calif. 96120

January 28, 1980

U.S. Environmental Protection Agency
Att: Hearing Office, HE-158
Region IX
215 Fremont Street
San Francisco, CA. 94105

Subject: Draft EIS on South Tahoe Wastewater Treatment Plant Expansion

We wish to formally and vigorously protest the Draft EIS and request that additional study and public review be undertaken on this project prior to approval of any funding for plant expansion. Our reasons for protesting are as follows.

1) The study does not address impacts on Alpine County other than superficially. The entire focus is on the Tahoe Basin and Carson Valley. The spillover effect on population in our sparsely-populated, rural county will, we believe, be substantial and will create tremendous problems here. We particularly fear that there will be development pressure on Hope Valley, which is very sensitive environmentally, and on Woodfords Canyon. Fiscal constraints imposed by Proposition 13 will make provision of services to new growth areas extremely difficult.

Our county now has a Growth Management Study under way. The results of this must be considered.

In addition, we believe that development of the northern portion of Alpine County as a "bedroom" community for Tahoe growth will have a detrimental effect on the quality of life for residents of this area.

2) More specific information is needed on how ICR is to be maintained as a recreation lake and fishery. We believe that it will be necessary to put about 2500 acre feet of river water annually into the lake in order to maintain it as a viable recreation site. No information is available as to where that water is to come from or how it is to be transported to ICR. Will it be diverted into the existing pipe somewhere in Hope Valley? Then what of the environmental impact on the valley and on the West Carson River? Will it be run through a ditch to Stevens Lake and then pumped into the reservoir? Can that much water be trasnported by this means? Or will a parallel pipe be run from the upper Woodfords Canyon down? Again, what are the impacts both from construction and from the diversion of this amount of river water?

It is our understanding that plans are to put about 650-700 acre feet per year of river water into ICR. This will maintain the present lake level but will result in a stagnant pond with thick mats of green algae. No figures or studies appear to be available to contradict this assumption.

All farmer-users must be involved in negotiations for water rights exchange, not just Heise, and all should be included in initial negotiations.

If ICR is ultimately to become an algae-infested, stagnant, unuseable pond, then why not just store the secondary effluent in it to begin with rather than destroying the lovely Harvey Flat site?

3) What of the seasonal odor which will be emitted from the secondary reservoir? What impact will this have on nearby residents and on the ICR campground?

4) What impact will storage of the secondary effluent have on the groundwater in the area as a result of percolation through earthquake faults and fractures in the area? Will there be an adverse impact on groundwater which is used for domestic purposes? If a problem does develop along these lines, what corrective action can and will be taken, by whom, how quickly, and who will pay the cost?

5) At the Public Hearing held in Alpine on Jan. 23, Jim Cofer stated that STPUD will be sending 5000 acre feet per year to Alpine. The proposed plan is for

10 million gallons per day. That equals almost 11,000 acre feet per year, not 5000. Why the discrepency? Is the Harvey Flat site adequate to store that amount of effluent, or will additional storage area be needed? If so, where do they plan to put it?

6) We do not believe that any consideration has been given to advanced secondary treatment with additional clarification so that the effluent could continue to be stored in ICR and used for non-body contact sports, a fishery, and then for irrigation. We believe that this is a far better plan from Alpine County's standpoint, and we believe that no thought has been given to it because it would cost somewhat more money than STPUD's currently preferred plan.

This appears to be a "rush to judgment" on STPUD's preferred alternative with totally inadequate consideration as to impacts on Alpine.

There is a long-established pattern of STPUD opting to take the least expensive approach they can get by with regardless of the effects on this county. Plant breakdowns, poor management, and continued degradation of ICR has been the pattern for ten years.

7) All planning and negotiations between STPUD, farmer-users, and Alpine County officials should be public. Negotiations are going on between STPUD and Heise which may affect the other users and the County. If the farmers are bound by contract to use the water for 20 years, and the County is bound by contract to accept the water "in perpetuity", this potentially leaves the county to face the enormous problem in 20 years of getting rid of 10 mgd with nowhere to put it. The farmers should be bound to the same contractual obligations as is the County.

This is but one example of why all affected parties should be participating in the planning and negotiating throughout the entire decision-making process and why the EPA should consider these factors in the EIS.

8) No information has been made available concerning the possible impact from build-up in the soils of effluent components which could lead to souring of the soil, adverse taste or health factors in the beef cattle grazing on these irrigated lands, or soil productivity. These potential impacts need to be evaluated, also.

9) We utterly fail to understand why EPA is considering funding plant EXPANSION when this will inevitably result in increased growth at South Tahoe and further degradation of the lake. EPA's own studies show that Tahoe is in severe jeopardy now from over-urbanization. Funding improvements in the plant is justifiable; funding expansion is not.

We firmly believe that no serious attempt was made by EPA to consider the environmental impacts of this proposal on Alpine County. We urge that these questions be given your attention and study in depth and that answers be provided to Alpine County officials and residents before there is any further consideration of funding plant expansion. Unless we receive assurances that this is being done, we feel that we have no alternative but to proceed with our plans for an initiative petition to place the issue before the voters of Alpine County so that the interests of Alpine County residents can be adequately protected.

Thank you very much for your consideration of this request.

cc: Alpine County Board of Supervisors
Senator John Garamendi
Assemblyman Norman Waters

Gerald Prudy

Nancy C. Thornburg
Kate Harvey
Diane Holt

R Harvey
Frederick L. Holt

[illegible] Smith
Janine Szegoes
Dorothy K Johnson
Deanna [illegible] Hensley
Lloyd E. Smith
Marian W. King
Elizabeth Cogan
Mr & Mrs Richard Guyette
Clara Ellis
Kathryn Jerauld
Gerald D. Price
Lillian Thornburg
Dorothy M. Davis
[illegible]
Mr & Mrs Doug Ford.

Pat Smith
[illegible]
Ethel Sandell
Carl Sandell
Ileen S. King
Eberhard Weidenmyer
Mr & Mrs Robert Parker
Mr. & Mrs. Donald Halvorson
Margaret E Purdy
Lynn Bawden
Brian Osgood
Sharon K Osgood
Elwood Davis
Lloyd H Watson

(HE-130) 1C

State of California **The Resources Agency**

Memorandum

To : James W. Burns
Projects Coordinator
Resources Agency
13th Floor
Resources Building

Date : February 14, 1980

Subject : REVIEW OF DEIS,
WASTEWATER TREATMENT
FACILITIES
SCH #79122005

From : **California Regional Water Quality Control Board**
Lahontan Region
P.O. Box 14367
2092 Lake Tahoe Blvd.
South Lake Tahoe, California 95702
(916) 544-3481

The staff of the Lahontan Regional Water Quality Control Board has reviewed the "Draft Environmental Impact Statement (for) Proposed Wastewater Treatment Facilities, South Shore Lake Tahoe Basin (DEIS)", and we wish to make the following comments:

General Comments

1. The report fails to identify in detail any specific recommended project configuration or capacity. Revisions should be made to incorporate the specific features of the recommended project.

2. We find no detailed discussion of the "No Project" alternative and an evaluation of its environmental effects. The report should be amended to include this information.

3. We believe that an additional scenario should be added, consisting of funding to existing levels of service commitments and analyses of associated environmental impacts for such an alternative.

4. The document should specifically determine and identify thresholds for various environmental factors, infrastructure, and social services. Where thresholds are exceeded or would be exceeded, impact rating should be stated as extreme and unacceptable and the associated scenario ruled out for funding eligibility.

5. We greatly doubt that the various mitigation measures outlined in the DEIS will ever really be effective in avoiding projected adverse impacts. The record of the last 10 years of land-use control at Tahoe has been to impose mitigation measures for new development, yet the quality of Lake Tahoe and its environment has steadily continued to decline. We believe that minimum criteria for demonstrated effectiveness of mitigation measures should be specified.

6. In many instances the Tahoe Regional Planning Agency (TRPA) is identified as an agency responsible for implementation of mitigation measures. The poor record of performance by this agency suggests that the report should not invest reliance on TRPA for effective implementation.

7. In general, the effects of various growth scenarios on Alpine County are largely vague or understated. For example, we believe that the 5% spillover assumption is too low to represent what really would occur. Particularly important is the serious lack of detailed, relevant discussion and evaluation of the potential health effects of reclaiming secondary effluent in Alpine County.

8. With respect to South Tahoe PUD, the report should thoroughly evaluate the need for conventional secondary treatment (CST), advanced secondary treatment (AST), or advanced wastewater treatment (AWT) and should provide sufficient rationale for funding of treatment beyond CST in accordance with new Federal regulations regarding this issue.

9. The impacts of the recommended project should be presented in detail along with the minimally necessary mitigation measures to facilitate funding.

Specific Comments

Page 1. Further detailed explanation of the specific water quality problems at Indian Creek Reservoir (ICR) is needed. For example, the causes of eutrophic conditions at ICR should be explained in addition to the fish toxicity problem.

Page 2. It should be clarified that DCSID is proposing to expand its plant from an effective capacity of 2.3 mgd to 3.0 mgd. Though DCSID claims the plant was originally designed for 3.0 mgd, it has never been able to treat that amount of flow. Also omitted is any reference to the leakage of sewage effluent into the Tahoe Basin from the DCSID holding pond.

Pages 12 and 13. We greatly doubt the validity of the assessment that removal of the DCSID discharge from the Carson River might result in higher pollutant concentrations during the dry season. We also doubt that the quality of irrigation return waters is poorer than the typical DCSID effluent discharged to Carson River.

Page 15. In Table 4, UC Davis should be deleted as a responsible agency under water quality mitigation, since this organization exerts no regulatory power and functions no differently than a private contractor.

Page 19. The reference in the first paragraph to the "Upper River Basin" should be changed to "Upper Carson River Basin."

South Tahoe PUD violated waste discharge requirements from 1974 through 1977. After 1977, intermittent technical violations continued to occur. Additional discussion is warranted on the impact of the violations at ICR, as evidenced by toxicity and eutrophication problems and foaming in irrigation water released from the reservoir. The discussion on page 19 should also be updated to reflect the most recent actions toward South Tahoe PUD by the Regional Board.

Page 20. We believe that environmental goals for water resources and quality should include enforcement of nondegradation policies where appropriate. We propose as an additional environmental goal that land-use and development be consistent with protection policies for Lake Tahoe. Certainly, any list of environmental goals should include the objective of protection and restoration of the Lake Tahoe environment as a whole.

Page 39. The South Tahoe PUD treatment processes are inaccurately described. Ammonia is removed primarily by breakpoint chlorination; air stripping plays a minor role. The listed sequence of lime sludge handling processes should also be corrected to conform to current practice.

Pages 42-45. The discussion on pages 42 and 44 and Table 11 on page 43 should be revised to incorporate provisions of the current NPDES permit adopted by the Regional Board on December 6, 1979.

The discussion on current flows and capacity on page 44 should be revised to reflect the additional reasons why the consulting panel chose to rate the South Tahoe PUD plant at 7.0 mgd. (See Consulting Panel Report; Findings and Conclusions.)

The discussion of impacts on ICR should include effects on beneficial uses, including water contact and non-contact recreation.

On pages 44-45, the discussion regarding DCSID fails to address the problem of leakage from the holding pond. There should also be a more detailed discussion of the record of noncompliance by this discharger. Also, there is no mention of the reduced effective capacity at DSCID as the result of effluent violations, thus making the discussion under "Capacity and Current Flows" on page 45 very misleading. A comparison of export pipeline capacity to export pumping capability should also be made since export pumping capacity is limited to approximately 2.88 mgd.

Page 57. An additional new alternative for South Tahoe PUD should be inserted. This alternative should include AST followed by storage and land disposal in Alpine County.

Page 63. The discussion regarding potential public health hazards in Alpine County due to reclamation of wastewater is inadequate and should be expanded to include all relevant issues and state-of-the-art knowledge.

Page 69. It is incorrectly stated that pumps were used during the 1976-77 drought to lift water from Lake Tahoe into the Truckee River. Such was not the case.

Page 70. The visitor figures in the first paragraph are misleading when discussed together with the beneficial uses of Lake Tahoe. The expansion of peak figures between 1970 and 1977 was probably related largely to the expansion of casino gambling rather than to beneficial uses of the lake.

Page 71. Table 15 includes a printing error from our Basin Plan. The "x's" for Beneficial Uses of Minor Streams in Area Code 634.10 should be shifted two positions to the left.

Page 72. Table 16 omits narrative water quality objectives specified in the North Lahontan Basin Plan.

Page 75. A key phrase has been eliminated from the description of the California nondegradation policy. Line 7 of paragraph 3 should read: "Will not result in water quality less than that prescribed in the policy."

Pages 75-76. Although it may be popular usage, EPA should not perpetuate a technically inaccurate phrase such as "preservation of the ecology." "Ecosystem" should be used.

Page 76. The statement is made that Lake Tahoe is not now being monitored. A limited amount of monitoring is being done by the U.C. Davis Tahoe Research Group.

The discussions of groundwater and tributaries should include the former South Tahoe PUD land disposal site within the basin and its influence on surface and groundwater quality.

The last paragraph does not give sufficient emphasis to the concept of threatened violations. If it can be shown that a source will or may raise the annual average to exceed the objective, that, in itself, is a violation.

Page 77. The units for nitrate and total phosphorus in Table 18 should be micrograms per liter.

Page 79. Some of the "undeveloped" tributaries in Table 20 have been influenced to some extent by man (e.g., summer homes on Cascade Lake, road along General Creek).

Page 80. Units for nitrogen, phosphorus and iron should be micrograms per liter in Table 21.

Page 81. Fourth paragraph, under heading "Loss of Environmentally Sensitive Lands": Not only have just two types of lands in the Tahoe Basin, SEZ's and high erosion hazard lands, been particularly affected, essentially all lands in the Tahoe Basin have been affected. The land capability system was developed not only to indicate which lands are too sensitive for any disturbance, but also to indicate the appropriate level of disturbance and coverage for all lands. Thus, development has affected environmentally sensitive land in three ways:

- construction on high hazard lands,
- construction in SEZ's, and
- construction resulting in coverage in excess of land capability.

Table 24 indicates a single value for runoff concentration from a variety of activities. In reality, the TRPA 208 program collected numerous water quality samples, and, independent of type of runoff event, simply took the mean value of all samples taken for a particular activity. In reality, a wide range of concentration values was observed. The fact that no attempt was made to relate the range of concentration to flow regimes is a serious shortcoming of TRPA's 208 effort.

Pages 81-82. The roles of grazing, logging, and offroad vehicle use in sediment production should be added to the discussion here.

Page 84. Turbidity units in Table 24 should be "JTU" (for "Jackson Turbidity Units").

Page 85. A line appears to have been omitted in footnote 1 to Table 25.

Page 86. The term "periphyton" is used here without being defined.

Pages 89-90. The pollutant loading model which the TRPA used to develop information contained in Table 26 is probably incorrect for a number of reasons. Among these reasons are:

- Pollutant loadings in the TRPA model are not related to intensity of development. The pollutant concentration for an area zoned LDR (613 mg/l suspended sediment) is the average concentration of numerous samples collected from a large number of areas zoned LDR. Some of these areas may be 20% developed, while others may have been 80% developed. Yet the application of the mean data value (613 mg/l) does not distinguish between the two. Use of the TRPA model would not show any variation in runoff quality from LDR zoned areas as buildout is approached. The State Board model used in the 208 report, on the other hand, does show an increasing deterioration of water quality as development proceeds.

- Pollutant loadings in the TRPA model are not related to land capability. The TRPA model, for example, assumes no difference in runoff water quality between a LDR development on high erosion hazard lands with large cut and fill slopes and a LDR development on low hazard land and relatively flat terrain. The State Board model does show a definite correlation between water quality deterioration and development on increasingly high hazard lands.

- Pollutant concentrations in the TRPA model are based upon the mean value of all samples collected from a particular land use zone. This value is then applied to a theoretically calculated value of runoff quantity to determine the loading rate from the particular land use zone. Such an approach is fundamentally incorrect. Concentration of pollutants in runoff varies tremendously from one runoff event to another and even within a particular event. Nonetheless, reasonably good correlations can be achieved by relating increased pollutant concentration to increased runoff amounts, at least for similar types of runoff events. As documented in the State Board report, "Demonstration of Erosion and Sediment Control Technology--Lake Tahoe Region." Thirty-six percent of the sediment discharge from the Lonely Gulch Creek watershed occurred during rainstorm events which occurred less than 3% of the time and involved less than 0.5% of the total flow in the stream. Clearly a random sampling program with the resultant average sample value applied to the total volume of water discharged from a particular land use zone is not an accurate simulation of realistic events. The State Board model used in the most recent Tahoe 208 report attempts to correct this problem by using only water quality data that have been flow-related on an annual average basis. The approach used by the TRPA model, coupled with relating natural loading rates to areas zoned General Forest (independent of actual disturbances taking place), is probably the reason why natural loading rates in the TRPA model are vastly different than those in the State Board's model.

- Although the State Board model is not perfect, it would appear to be a far more realistic representation of the physical characteristic of erosion and urban runoff than is the TRPA's model. This is somewhat ironic in that the vast majority of water quality data which were used in the State Board's model were available prior to the start of the TRPA's water quality monitoring and 208 planning effort. The major shortcoming of the State Board's model is that it does not relate water quality levels to implementation of remedial control measures. It would appear, however, that insufficient information is presently available to attempt inclusions of such relationships.

- For the above reasons, the final EIS should incorporate the model used by the State Board in its draft 208 plan. We recognize that much of the nutrient information was not available prior to the time the draft EIS was sent to the printers. This, however, should not prevent inclusion of this information in the final EIS.

Page 92. In Table 28, concentrations of all parameters except suspended solids are incorrectly expressed as mg/l. The correct units are µg/l (micrograms per liter).

Page 93. Second line from the bottom should read, "...sediment yield, 0.25 tonnes/hectare/year..."

Page 94. First paragraph. Tahoe Keys, Bijou Park, Tallac Village, and much of Meyers are not in high erosion hazard areas. Certain portions of these areas are in SEZ's.

In determining the mitigation measures for erosion and urban runoff control, the following factors are extremely critical:

- any development of high erosion hazard lands,
- any development of SEZ's,
- degree of coverage and disturbance in any developed area,
- extent of remedial or onsite control measures to reduce existing levels of pollutant loading to Lake Tahoe.

Page 96. It should be emphasized in the table that it represents annual loadings by the year 2000.

Page 98. Last line: Change to "plankton counts."

Page 99. Under mitigation measures, we do not believe that it is enough to merely restrict development in SEZ's; further development in such areas must be prohibited outright. Similarly, development on high erosion hazard lands (HEHL's) should also be prohibited as opposed to merely discouraging development on such lands.

Pages 101-102. The point system proposed is useful in directing development to the most suitable lands, but actually fails to prevent development in SEZ and HEHL areas. The point system would be useful in complementing development prohibitions in SEZ and HEHL areas.

Pages 102-103. U.C. Davis should be deleted as a responsible agency for implementation of water quality monitoring mitigation.

Pages 103-104. The TDR system described here has a great deal of merit from a water quality standpoint. However, the TDR system could be improved by incorporating an offset policy into any TDR approvals, thus enhancing Lake Tahoe water quality rather than merely maintaining it. Consideration should be given to an offset policy as a separate mitigation measure to be implemented by local and regional agencies.

The entire discussion of development impacts should be updated to reflect the State Board's 208 plan for the Tahoe Basin.

Page 117. It is noted that critical damage would occur to SEZ's under all growth scenarios. The effects on SEZ's of a "no action" scenario should also be discussed.

Page 142. The establishment of an NSA as a mitigation measure is a good suggestion; however the discussion here does not cover the subject adequately. Further information on the proposal should be supplied.

Page 196. The discussion of water supply should be updated to reflect the State Board's water rights report. The following specific comments are by Charles White, the author of that report:

Page 197. Water Supply Impact Assessment. There are a number of incorrect or inappropriate statements in the water supply impact assessment section beginning on page 197.

The California-Nevada Interstate Water Compact (not to be confused with the California-Nevada Interstate Planning Compact which forms the Tahoe Regional Planning Agency - TRPA) allocates 23,000 afa and 11,000 afa to California and Nevada, respectively, for total annual gross diversion for use within the Lake Tahoe Basin from all natural sources including groundwater and under all water rights. An additional section of the compact also provides for diversions for non-consumptive purposes provided that such uses result in no discernable reduction of water available to either state. Furthermore, the water compact also provides for increases beyond the above amounts, provided that certain additional conditions are met.

The specific allocation of the water granted each state for use within the Tahoe Basin is left to the jurisdiction of each state. The water compact does not supersede the respective water rights laws of each state, and each state may presumably allocate its share in any manner it sees fit. The language on page 198 of the EIS seems to imply that the compact contains certain assumptions pertaining to water use. This is completely false. The assumptions listed on page 198 for the California portion of the Lake Tahoe Basin are simply assumptions made by the staff of the State Water Resources Control Board in arriving at a recommended equitable allocation of the 23,000 afa under California water rights law in fulfillment of California's responsibility as required by the water compact. Although the report was released with the full awareness of the State Board, it does not represent an expression of State Board policy. The State Board will hold hearings on the subject matter and determine an appropriate policy at some later date.

The table provided at the bottom of page 197 is somewhat narrow in scope. The variation in water use under each of the scenarios appear to only be a function of the sewage flows which the EIS has calculated for each scenario. This is erroneous for two primary reasons:

1. The sewage flows under each of the future scenarios assume continuance of existing occupancy. At present, annual average occupancy rates for the Lake Tahoe Basin are less than 65%. An increase in occupancy, primarily during non-peak periods, could have a tremendous impact on total annual water demand. On the other hand, non-peak period increases in occupancy might not affect peak sewage flows to as great a degree. Fill-in of vacant units during non-peak periods could potentially increase total water demand by 20-30%, without having any resultant increase in peak sewage flows.

2. The table does not reflect a possible change in per capita water use through increased landscape irrigation practices. Such uses appear to be on the increase in the Tahoe Basin. Such increased water consumption would not be accompanied by increased sewage flows.

Obviously, it is impossible to treat such water use possibilities with any degree of precision. Water use is extremely elastic depending upon a large number of factors including climate, development trends, regulation and public awareness. The "Report on Water Use and Water Rights" recently published by the State Water Resources Control Board shows present water demand for the South Tahoe area to fluctuate from 6,936 to 8,518 acre-feet per annum. This fluctuation represents 20% of the present overall diversion (7,660 afa). Furthermore, the report projects that buildout of existing subdivided lots in the South Tahoe area could lead to a water demand ranging from 12,600 to 17,000 afa. These amounts are clearly in excess of the 12,100 afa which the report recommends for allocation to the South Tahoe area.

At a minimum, the EIS should be cognizant of these ranges in potential water use. Increased development levels within the South Tahoe area should be tied closely to increased levels of water use in the future. Development which would lead to a water demand in excess of available water or established water rights should be prohibited.

The table appearing at the top of page 198 is misleading and inappropriate. The table incorrectly portrays the water rights situation in the DCSID portion of Nevada. Prior to 1966, annual acre-foot limitations were imposed upon only a few water rights in the Nevada portion of the Lake Tahoe Basin. Depending on localized water availability, diverters in the Nevada portion of the Basin could theoretically divert over 73,000 afa. Since 1966, the Nevada State Engineer has pursued an aggressive program to place annual acre-foot limitations on all water rights in the Nevada portion of the Basin. As of September 1978, the status of water rights in the Nevada portion of the Basin was as follows:

Water rights with annual limit	10,636
Water rights without annual limit	3,306
Subtotal	13,942
Pending water rights applications	20,625
Total	34,567

Clearly, Nevada has made substantial progress in imposing annual acre-foot limitations.

The Interstate Water Compact allocates 11,000 afa to the Nevada portion of the Tahoe Basin. As stated above, existing rights total 13,942 afa. Clearly, the State of Nevada will have to limit water use even further than specified in existing water rights if it is to adhere to the water compact allocation. In view of the water compact allocations and existing water rights, the approval of any pending water rights applications in Nevada seems an extremely remote possibility.

Each water district within the DCSID has a water right or series of water rights which, in combination with all other approved rights in the Nevada portion of the Basin, add up to 13,942 afa. The possibility of each water district within the DCSID service area acquiring more water than is presently specified in their individual rights is unlikely.

In this light, the proper approach in tabulating water rights within the DCSID service area should be as follows:

> The table should list all the water districts within the DCSID service area, of which there are approximately 20. After each water district, the amount of total water available for use within that district according to existing water rights should be listed. After the legally available supply, the table should list the 1978 and the projected water use "range" for each scenario for each water district. Asterisks could be used to indicate when the projected range under any scenario exceeds or threatens to exceed the water rights of any particular district.

In this manner, the EIS would more correctly portray the actual water rights situation in the Nevada portion of the Basin. It is not inconceivable that under any one scenario, some water districts would exceed their individual rights while others would not. This could lead to a redistribution of water rights, individual water conservation programs, or development controls within various individual water districts.

An insufficiency of water rights is already causing potential problems for the Incline Village area. Presently, the Incline Village G.I.D. does not have sufficient water rights to serve projected full buildout of existing subdivided lots. At the same time, the Incline Village G.I.D. is being asked to provide water service to new condominium and commercial developments which would further decrease its eventual ability to provide service to existing vacant lots. We suspect that the Incline Village situation is not an isolated one.

Page 200. There appear to be several discrepancies in the unit flow assumptions for casino facilities used to derive the flows projected in the table. Compare these assumptions to the unit water use factors that appear in the footnotes of Table 3.05 in the DCSID Draft Facility Plan (January 1977).

The figure in the table for 1978 campsites in STPUD appears to be in error. Should it be 1,102?

Page 208. We suggest that user costs may also be mitigated by selection of the most cost-effective project that satisfies applicable standards and constraints.

Page 209. Mitigation for effluent transport is proposed here, but we find any discussion of the problem missing from the text of the DEIS. We also question whether in-basin reuse is the most appropriate mitigation for an effluent transport problem, considering the availability of another alternative less threatening to Lake Tahoe, namely, expansion of the export line.

The DEIS lacks any reference to the problem of continued illicit use of individual waste disposal systems within and adjacent to the service areas of the respective districts. The document should identify the extent of the problem and propose mitigation. Appropriate mitigation would be requiring that the respective districts survey their individual service areas and determine their needs. Each district should be required to provide sewer service to each discharger who continues to utilize an individual waste disposal system.

Pages 219-220. Part of the discussion of rare and endangered plant species appears to have been omitted between these two pages.

Page 236. The discussion of water quality problems in the Carson River fails to mention the degradation associated with the DCSID discharge, as documented by EPA as part of its lawsuit against this discharger. We doubt the validity of the implication in the last paragraph on page 236 that septic tanks in geologically unsuitable areas are a cause of siltation and large sediment loads.

In the last paragraph on this page, disturbance of vegetation and septic tanks should not be referred to as "natural" sources of pollution.

Page 237. Table 38 omits water quality objectives for the California portion of Carson River tributaries and should be amended accordingly. It should also be made clear that the upper number of each pair represents number of violations of the objective.

Page 238. The last paragraph implies that bottom sediments from ICR are the source of eutrophication and toxicity problems. This is not so. The South Tahoe PUD discharge is, by far, the greatest source of nutrients and ammonia. This assertion is substantiated by the Middlebrooks and Associates report.

The discussion on page 238 regarding potential effects of secondary effluent reclamation is totally inadequate. See general comment number 7.

The analysis of water quality problems on pages 236-238 omits two other important aspects:

1. Overflows from ICR.

2. Increased sediment contribution due to land development induced in Alpine County as a result of spillover.

In the analysis of impacts on the Upper Carson River area, there should be discussion on the benefits that are derived from reclamation and reuse of wastewater, such as economic gains and increased freshwater supply.

Page 244. Diamond Valley Road, Foothill Road, and Jack's Valley Road should be added to the list of scenic roadways in the Upper Carson River Basin.

Page 245. The discussion of visual impacts should include aesthetic enjoyment of water (part of the non-contact water recreation beneficial use).

Page 265. The second paragraph states that Indian Creek Reservoir is open to swimming. Water-contact recreation is not a recognized beneficial use of the reservoir in our 1975 Basin Plan (e.g., Table 37), and the State Department of Health Services has recommended that warning signs be posted.

Page 275. The impact assessment that begins on page 275 fails to assess in detail the health impacts of reclamation of secondary effluent. This section should also determine what level of treatment is necessary to assure complete public health protection.

Pages 279-80. The Lahontan Regional Board should also be listed as a responsible agency under mitigation measure number 1.

Additional measures for mitigation of adverse effects under wastewater treatment on pages 279-280 should be listed. This includes the measures outlined in the report prepared by Bill B. Dendy and Associates for Alpine County in addition to predischarge monitoring and continuous monitoring and reporting of water quality parameters in areas where effluent is or will be reused.

More detail should be provided under the description of mitigation measure number 3 on page 280. Examples of areas where additional assurances could be provided include designing for 100% redundancy, continuous infiltration/inflow corrections to prevent overloads, and contingencies for treatment facilities replacement or expansion to prevent deterioration of effluent quality.

Volume 2, Page 332. The discussion of STPUD contracts should be updated to reflect the installation of sewers at Fallen Leaf Lake.

Pages 343-344. This discussion should be updated to reflect the latest Regional Board actions.

Please contact Judith E. Unsicker or David C. Antonucci at this office if you wish to discuss these comments.

Very truly yours,

Roy C. Hampson

ROY C. HAMPSON
EXECUTIVE OFFICER

cc: Environmental Protection Agency/Janet Rosatti ✓

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REGION IX
COMM. CENTER
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DOUGLAS COUNTY NEVADA

PLANNING
DEPARTMENT

ANDREW BURNHAM
Director

(702) 782-5176

REC'D BY E.P.A
REGION IX
COMM. CENTER

FEB 19 11 05 AM '80

February 13, 1980

Ms. Janet Rosati
U.S. Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, California 94105

Dear Ms. Rosati:

The enclosed comments have been forwarded for your review.

Sincerely

ANDREW R. BURNHAM
PLANNING DIRECTOR

ARB/bjc

cc: File

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(HE-158) 1

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25 January 198

RECEIVED
JAN 29 1980
DOUGLAS CO. BLDG. & SAFETY

TO: Andy Burnham
Douglas County Department of Public Works
Minden, Nevada 89423

FROM: Raymond M. Smith, A.I.C.P., Planning Consultant,
Box 988, Gardnerville, Nevada 89410

SUBJECT: Draft EIS (Douglas County Sewer Improvement District # 1)

I detect (at least) five major points of criterion pertinent to the recently releast DRAFT EIS for the proposed waterwaste treatment facilities, South Shore, Lake Tahoe Basin. Briefly summarized, they are:

1. The report lumps "apples" (South Tahoe PUD) and "oranges" (Douglas County Sewer Improvement District) and draws very general conclusions from both. It must be remembered throughout that Douglas County SID is NOT (really) requesting additional capacity (expansion!), but rather permission to utilize its existing design capacity (which has been deprived due to changing standards by EPA). The "expansionary" forces so criticized in the report are all South Tahoe (South Tahoe PUD) not Douglas County SID. Taking Douglas County SID alone would change the entire tenor of the approach and the findings.

2. The scenarios are contrived, self serving and faulty -- at least as related to the Douglas County SID aspects. They are in reality "straw men" to be knocked down. Scenarios 3-4 & 5, for instance, all are based on expanded gallonage in Douglas County SID -- beyond that which is requested and presumably upon which this analysis is based. There is no point to analyzing -- and rejecting scenario situations, which are not germane to the issue, other than to obfuscate the real issue and play into the hands of the environmentalists.

3. The entire "spillover" argument is naive, vague and unfounded. There has not, in fact, been a major "spillage" from Tahoe into the Carson Valley area during the last 10 years or so -- a decade of major growth at South Shore. Gambling employees are for the most part (a) young, (b) unmarried, (c) low income, (d) oriented to the lake environment, and (e) renters, not owners. They do not and have not exhibited a tendency to commute 30 minutes over a 7200' pass. The summary report (page 11) reflects this: "with a strong second home market" land use policies oriented to large lot, low density development, the Carson

RECREATION DEVELOPMENT M .ET ANALYSIS ZONING MATTERS SITE LAYOUTS
SUBDIVISIONS FEASIBILITY STUDIES DISPLAY MAPS DEVELOPMENT POTENTIALS

Valley may not be affordable for the spill over population (mostly young low income employees") -- that says it all. There are still a very few multiple family units in Carson Valley (presumably rentals). The 70s decade in fact saw only 250 multiple family unit permits issued in Carson Valley against 1518 at Lake Tahoe. Experience would indicate that only "executive" level management seek homesites in Carson Valley -- and only a few of them at that. It is interesting to note that the "unscientific" poll taken by the Public Forum a while ago, that only 7.5% of the random survey and 2.2% of the "petition" respondents indicated gaming employment and that 9.5% of random and 7.1% of petition respondents indicated South Shore as a place of work. If this spillover argument is moot, much of the EIS is also moot.

4. The report is essentially negative in (predetermined) approach, attitude and conclusions. One wonders whether anything good is a result of the proposals. It is a record and forecast of doom and gloom -- characteristic of everything sponsored by the feds emanating from the Basin over the last 15 years. Apparently, an additional anything is inherently bad. The document is replete with "maybes," "possible," "perhaps," "very likely," probables, etc. It is thoroughly slanted to a no-growth situation (as it was intended to be).

5. It appears to be an attempt by EPA to "get into the act" (or take over the act). Everyone, especially Federal agencies, are anxious to "control" Tahoe. With the pending demise of TRPA (due to California actions), the State of California seems to want to abdictate to Federal paternalism. This document attempts to create EPA as a dominate authority, to supercede local authorities and responsibilities and to become the planning and financial policemen in the Basin. God help us all!

RAYMOND M. SMITH, A.I.C.P.,
Planning Consultant

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February 19, 1980

COMMENTS ON BEHALF OF LEAGUE TO SAVE LAKE TAHOE ON DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED WASTE WATER TREATMENT FACILITIES, SOUTH SHORE LAKE TAHOE

General Comments. The draft Environmental Impact Statement for the proposed expansion of waste water treatment facilities on the South Shore of Lake Tahoe has a number of grave deficiencies. We believe that the document does not meet the requirements of the National Environmental Policy Act and the action proposed would violate the Federal Water Pollution Control Act and regulations thereunder. The League to Save Lake Tahoe views these problems very seriously and wishes to put EPA on notice that, unless they are remedied, it will be forced to take appropriate legal action.

The report reflects a great deal of hard, dedicated, high-quality, and undoubtedly expensive labor, which provides answers to the wrong questions. This can be seen from the EIS' assessment of the nature of the problem at page 1. The EIS sees the problem as the need to deal with violations of water quality effluent standards from the STPUD and DCSID plants.

But the ultimate issue, the one that counts, is total water quality in Lake Tahoe. There is an unequivocal national policy to prevent any deterioration of Lake Tahoe's water quality. See Cal. Water Resources Control Board, draft 208 Report, p. 37; 40 C.F.R. §35.1550(e)(2); letter of transmittal accompanying the draft EIS. But that policy is not being carried out: deterioration is already occurring, and at an accelerating rate. The draft 208 Report (pp. 24-25) shows quite clearly that the enormous increase in nutrient and sediment loading at the Lake in recent years is due almost entirely to increased run-off from development.[1] EPA's proposed "solution" to the perceived problem of water quality effluent violations is to expand waste water treatment facilities. EIS, p. 1. But, as the EIS makes clear, that expansion will encourage additional development, which in turn will lead to increased run-off and further degradation of the Lake. The net result is an EPA recommendation that we spend at least $48 million, in the name of environmental protection, on a program which will further increase the rate of deterioration of Lake Tahoe, one of the greatest natural treasures in this country.

---

[1] Increased nutrients attributed to "sewage" in the 208 Reports relate to delayed effects of sewage disposal on land within the Basin prior to 1974.

A second major defect in the process is that one branch of government apparently does not know what the other is doing. Two branches of government are recommending conflicting courses of action, as each tries to implement different sections of the Federal Water Pollution Control Act. EPA seeks to enforce effluent limitations under §302 by supporting increased sewage treatment capacity. The California Water Resources Control Board, implementing §208, unequivocably opposes expansion because it will inevitably lead to further development and additional water quality problems. The Water Resources Control Board has now publicly asked the EPA to shelve plans for the expansion. That request should be heeded. Under FWPCA §204(a)(1), once the 208 Plan is approved, the agency may not make any grants which conflict with it.

As we noted above, and will detail below, EPA's cure is far worse than the disease it seeks to treat. Furthermore, as we demonstrate below, other means of dealing with effluent violations, which are not in conflict with the 208 Plan, are not even explored in the EIS.

Another example of this same phenomenon is EPA's ignoring of the requirements of Clean Air Act §316. That section provides that EPA may withhold sewage treatment construction grants if a state's air quality Implementation Plan does not expressly quantify and deal with the increase in air pollution associated with growth resulting from increased sewage treatment capacity. In fact, neither the California nor the Nevada plans have any such provisions. Furthermore, the California Department of Transportation and the Air Resources Board testified before Hearing Officer Matthew Walker that the existing state Implementation Plan for California will not allow attainment of ambient air quality standards even on the basis of current traffic emissions. They stated flatly that existing traffic loads are intolerable in terms of traffic management and air quality and that any increases in traffic associated with further development would be catastropic. Thus, from the standpoint of air quality, as well as water quality, the increase in waste water treatment capacity can be seen as an ill-advised decision to solve a major problem by creating an even larger one.

The draft EIS does not really dispute any of these assertions. Indeed, as we discuss below, the EIS does a commendable job of pointing out the relationship between development and water quality problems at Tahoe. The first 184 pages of the Report consist almost entirely of projections on how bad the damage will be under five different growth scenarios. Nonetheless, in the last two pages the EIS not only recommends an increase in capacity, but the maximum possible increase, which would result in "extreme" increases in pollutant loadings. Draft EIS, p. 96. This conclusion is based on the improper assumption that "mitigation measures" sufficient to offset the effects of development, can be established and enforced. As we show below, the EIS offers absolutely no data or analysis to support this highly debatable conclusion. Furthermore, even if a package of theoretically sufficient mitigation measures could be put together, there is absolutely no chance that those measures would actively be carried out.

It was left up to STPUD and DCSID to put forward a mitigation proposal, to which EPA would then react. At the hearing, the public was informed by EPA staff member Dave Jones that the decision on the adequacy of any such package would be within the discretion of Regional Administrator De Falco and that there were no written or informal guidelines as to how this decision would be made. This procedure is totally unacceptable in the context of NEPA's requirement that the reasoning by which decisions on environmental impact are reached should be revealed to the public and that the public should have some input into the process.

The following paragraphs discuss in detail some of the points raised above.

Water Quality at Tahoe is Deteriorating at an Increasing Rate. The California 208 Report shows that by every measure, water quality in Lake Tahoe is being severely degraded at an ever-increasing rate. Phytoplankton production rates have increased every year for the last 19 years (except during the drought of the mid-seventies) roughly doubling in 19 years and "the record, if anything, suggests an acceleration of the rate of eutrophication extending up through the most recent measurements." 208 Report, pp. 16-17. Sedimentation rates exhibit the same spectacular growth, corresponding to the current build-out at Tahoe. Sediment loads went from only about

15,000 metric tons a year in 1950 to well over 60,000 tons by 1980. 208 Report, p. 21. The rate of climb in nutrients and heavy metal due to run-off associated with development is particularly disturbing. The following figures, based on a rough measurement of the graphs in the 208 Report (pp. 24-26) are for metric tons per year:

Pollutant	1950	1970	1980
Nitrogen (excluding effects of land-based sewage)	140	380	480
Phosphorous (excluding effects from land-based sewage)	90	500	640
Iron	400	3,000	4,200

The draft EIS recognizes the existence of these problems and, indeed, adds its own alarming story of exponential increases in algae growth, in which the rate of increase per year has gone from 1.8% to 7.5% per year. DEIS, pp. 86-87. The EIS is in agreement with the 208 Report -- this deterioration is directly due to development and the pattern will continue as long as development does:

> As the intensity of land use increases, so does pollutant loading in run-off. Thus, concentrations of pollutants entering the Lake would increase if future development plans call for greater residential and commercial land uses. DEIS, p. 86.

In fact, the DEIS is even able to attribute rates of pollutant loading to each of a number of land use categories (pp. 89-91). And the DEIS makes it plain that, if anything, the studies of the impacts of urbanization on the Lake tend to underestimate those impacts (p. 91).

One chart in the draft Environmental Impact Statement is particularly startling. At page 92 it is shown that even at a rate of build-out no greater than existing uses in 1976, degradation of the Lake would continue for many years with an ultimate increase of phosphates of 57% and 95% for suspended solids. Thus, the draft EIS makes clear, if we are to achieve the mandatory goal of no degradation for Lake Tahoe, it is obvious that a major effort will be required merely to reverse water pollution associated with present levels of urbanization. Obviously, any further development would merely exacerbate the problem.

The Environmental Assessment prepared by the eleven federal agency members of the Western Federal Regional Council, summarizes and compares the changes in water quality at Tahoe (pp. 116-46) and concludes that development is causing Tahoe to undergo "cultural entrophication" (p. 174) and that "the extent and rate of the degradation of Lake Tahoe's water quality is clearly in violation of the non-degradation requirement for waters of exceptional recreational or ecological significance." (p. 181).

The scientific data available and the analyses of it in the 208 Plan and in the WFRC Environmental Assessment concludes that further development will degrade the water of Lake Tahoe and its tributaries.

Inadequate Examination of Alternatives. One of the most important requirements of NEPA is that an EIS examine alternatives to a proposed action, as well as the environmental impacts associated with those alternatives. While the draft EIS takes a commendably thorough look at the impacts of five growth scenarios ranging up to the maximum build-outs permissible under existing land use ordinances, there is no consideration of alternatives which do not accommodate further development. The no-growth alternative is not merely a theoretical exercise. Precisely this alternative has been recommended by the 208 Report, the California Air Resources Board, the California Department of Transportation, and the California Water Resources Control Board. The draft EIS should discuss methods to upgrade existing facilities so as to avoid upset conditions, rather than resorting to an increase in capacity, ostensibly for the purpose of handling occasional large flows. One obvious defect in a strategy of handling effluent violations by merely increasing capacity is the inexorable pressure to utilize the expanded capacity through new hook-ups. This diminishes the reserve capacity, leading to new violations in the future; pressure then builds for a new round of expansion in a never-ending cycle, as discussed thoroughly in the Environmental Assessment, December 1979, Chapter 6. The role of the federal government, which details the incremental nature of decisions and their cyclical process, results in a cause/effect relationship leading to adverse environmental impacts. (pp. 202-212). In this case, unlike many others, the environmentally correct course of action would undoubtedly be the cheapest. Yet the draft EIS does not even mention this attractive possibility.

Mitigation Measures. One of the most deficient aspect of the draft EIS is its analysis of mitigation measures. For each of the numerous severe environmental impacts detailed in the EIS, a list of mitigation measures which, presumably, could eliminate those impacts is presented. What we have here is nothing less than a tour through an Alice-In-Wonderland world. A look at one such discussion should serve as a guide to the overall quality of the exercise. At pages 99-104, the DEIS suggests seven means of mitigating the effects of sedimentation and erosion associated with development. The first suggestion is for a land use ordinance to prevent new subdivisions in stream environment zones and impose structural conditions on new construction on previously subdivided lots. The EIS (p. 100), credulously rates the effectiveness of such a proposal as "could be high if rigorously enforced." This is the very power that the Tahoe Regional Planning Agency and the California Tahoe Regional Planning Agency have purported to exercise during the last dozen years, during which time the rapid degradation of Lake Tahoe detailed in the DEIS took place. History, especially of TRPA, demonstrates that variances are all too easy to come by, that the will and funding to enforce conditions is usually absent, and that any land-use ordinance which could gain enough local political support to be passed would of necessity have enough loop-holes in it to preclude any kind of meaningful controls on development.

The second suggestion is to condition building permits by requiring use of best management practices. However, those practices are based, in part, on economic feasiblity, and do not purport to control erosion 100%. As we noted earlier, any erosion associated with new construction is unacceptable if water quality degradation is to be halted.

The third proposal is to institute a point system under which the timing and order of construction on already subdivided land could be regulated in favor of projects deemed superior from an environmental point of view. This suggestion, though laudable, does nothing but regulate the order of building. If a growth ceiling is imposed on top of the point system, as suggested on page 102, then we have created a variation on the land use control theme, with its attendant defects, discussed above.

The fourth measure suggested is water quality monitoring, which, of course, only measures, but does not prevent degradation.

Suggestions five and six are to establish a fund to buy critical parcels in order to forestall development and to compensate landowners whose rights to develop might be restricted by land use control ordinances. The amount that would be needed and the source of such funds are not specified.

The final suggestion is to create a system of transfer of development rights. While TDR may some day become a manageable tool, its basic function is to promote future development, with its attendant environmental and social impacts and costs.

Even if every one of these measures could be adopted and enforced, they simply could not prevent all further run-off into the Lake from new development. The WFRC Report finds that "remedial actions (when and if they are taken) will be very expensive, and the extent to which they can stablize and decrease excess sediment and nutrient loading rates is uncertain at best." (p. 182)

As to the likelihood of even getting commitments to carry out this kind of activity, we can do no better than refer to the testimony of Jere Williams consulting engineer to DCSID, who remarked on the numerous agencies whose cooperation would be necessary to implement the suggestions, as follows:

> It is submitted that a triumvirate comprised of Caesar, Attila the Hun, and Ivan the Terrible, could not get cooperation from this many governmental bureaucracies.
>
> * * * * * *
>
> You are asking a three-member board of directors to accomplish what to this date has not been accomplished by the federal government, state or local governments. Transcript of hearing in Sacramento, pp. 241-43.

Even if some of the agencies could be persuaded to coordinate their activities and to agree to some of these mitigation measures, how can we rate their effectiveness? For example, would EPA consider adoption of a land use ordinance and best management practices enough, or would a point system and transfer of development rights also be necessary? Would a purchase plan be necessary in addition, and, if so, how much money would be needed? The EIS is silent on the relative weight attributed to the various mitigation measures. Thus the public is unable to participate in the crucial process of assessing the ultimate effectiveness of any mitigation measures which may be proposed.

A Step Back From Tertiary Treatment. Almost lost in the discussion of increased capacity is the fact that STPUD is being permitted to abandon its tertiary treatment facilities. This is an unwarranted step backward in the fight to establish maximum feasible control technology, and violates Congress' goal of installing best practicable technology and water reclamation and recycling. See F.W.P.C.A §201(b), (g)(2)(B). Section 201(g)(5) specifically prohibits new grants unless the possibility of recycling and reclamation have been studied. We submit that it would be better to spend federal funds on getting the bugs out of the present tertiary system. Water treated by a properly functioning tertiary system could be reused within the Tahoe Basin, thus obviating cost in dollars and energy of extra-Basin disposal.

Uncertainty Concerning DCSID Plans. We endorse and incorporate by reference the testimony submitted by Natural Resources Defense Council concerning the draft EIS' ambiguity on the subject of expansion of capacity at the DCSID plant. The precise nature of the District's proposal and its effect on total capacity should be clearly stated. However, if the EIS is seriously proposing an expansion to accommodate Growth Scenario Number 5(6.27 mgd, p. 200), the League to Save Lake Tahoe vigorously opposes this idea. It directly contravenes federal policy against further development on the Nevada side of the south shore, as evidenced by the recently-signed bill authorizing purchase of the Hotel Tahoe Palace site.

Relation to the 208 Plan. William J. Miller, Vice Chairman of the State Water Resources Control Board, has stated in no uncertain terms that sewage treatment capacity should be limited to that necessary to serve existing development. He stated that the state's 208 Plan will include such a limit and that EPA should not award any grants which would conflict with that limit. If this agency does not heed Mr. Miller's plea, it will find itself in the embarrassing and illegal [2] position of financing a violation of a 208 Plan. Even in the strange realm of politics, such a result must surely be unacceptable.

Recommended Action. The DEIS is fatally flawed. It totally fails to assess alternatives which do not call for expanded sewage treatment capacity, and it does not discuss the impacts and efficacy of proposed mitigation measures. The DEIS must be rewritten to reflect these concerns.

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[2] FWPCA §204(a)(1)

In addition, the DEIS is premature, since the final 208 Plans for the Tahoe Basin by California and Nevada have not yet been submitted. Those plans almost certainly will call for no new development at Tahoe. Clearly, EPA should not recommend any particular action until the 208 Reports are completed. If the agency intends to ignore the 208 Plans for Tahoe, it is submitted that a detailed explanation will be needed. In any event, action at this time is clearly inappropriate.

The League to Save Lake Tahoe has consistently opposed further urbanization in the Tahoe Basin. We believe the best way to do this in an equitable manner is for the federal government to purchase lots in sensitive areas. That way, these areas can remain undeveloped, while their owners are fully compensated. Federal funds should be used for this purpose, rather than for unneeded and counterproductive expansion of the urban infrastructure. In closing, we wish to reemphasize that the League intends to back its views with vigorous legal action should EPA decide to continue on its ill-advised decision to fund expanded sewage treatment capacity at Tahoe.

Respectfully submitted,

Joseph J. Brecher

Joseph J. Brecher

Attorney for the League to Save
Lake Tahoe

(HE-158) 21

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NOTICE OF MEETING OF THE ADVISORY PLANNING COMMISSION OF THE TAHOE REGIONAL PLANNING AGENCY

NOTICE IS HEREBY GIVEN that on February 13, 1980 at 10:00 a.m. at the hearing room of the Tahoe Regional Planning Agency, located at 2155 South Avenue, South Lake Tahoe, California, the Advisory Planning Commission of said agency will conduct its regular meeting. The agenda for said meeting is attached to and made a part of this notice.

Dated: February 1, 1980

By: Philip A. Overeynder
Philip A. Overeynder, Manager
Tahoe Regional Planning Agency

(HE-158) 21

TAHOE REGIONAL PLANNING AGENCY
ADVISORY PLANNING COMMISSION

TRPA Office, 2155 South Avenue
South Lake Tahoe, California

February 13, 1980
10:00 a.m.

PRELIMINARY AGENDA

I CALL TO ORDER AND DETERMINATION OF QUORUM

II APPROVAL OF AGENDA

III DISPOSITION OF MINUTES

IV CLEARINGHOUSE

✓U.S. Environmental Protection Agency, Draft Environmental Impact Statement, Proposed Wastewater Treatment Facilities, South Shore, Lake Tahoe Basin

V PLANNING MATTERS

A. Land Use Ordinance Amendments - High Density Apartment Land Use District and Standards for Timesharing, Interval Ownership Condominiums

B. Subdivision Ordinance Amendments Relating to Condominium Conversions

C. Work Program - General Plan Update and Threshold Carrying Capacities

D. State of California, State Water Resources Control Board, Draft Water Quality Plan: Lake Tahoe Basin

VI REPORTS

A. Public Interest Comments

B. APC Members

VII RESOLUTIONS

VIII CORRESPONDENCE

IX PENDING MATTERS

X ADJOURNMENT

TAHOE REGIONAL PLANNING AGENCY (HE-158) 21

MEMORANDUM

DATE: February 4, 1980

TO: The Advisory Planning Commission

FROM: The Staff

SUBJECT: Clearinghouse Comments on Draft Environmental Impact Statement (DEIS), Proposed Wastewater Facilities, South Shore, Lake Tahoe Basin

Background

The Advisory Planning Commission considered comments on the above-referenced document to be forwarded to the Environmental Protection Agency at a regular adjourned meeting held on January 16, 1980. Agency staff reported the thrust of these comments to the Governing Board at the January 23 meeting. Staff was directed to bring the matter before the APC so that the comments could be finalized for consideration by the Governing Board at the February meeting. The staff was further directed to coordinate the APC comments with those of Douglas County and the "Mitigation Measures Committee" from entities within El Dorado County and the City of South Lake Tahoe.

Schedule

The Environmental Protection Agency (EPA) has extended its deadline for comments to February 29, 1980. EPA is seeking comments with regard to the conclusions of the report and commitments from jurisdictions within the Basin regarding implementation of the mitigation measures outlined in the DEIS. Actual implementation of the mitigation measures may take place after EPA makes the decision regarding federal funding for expansion and upgrading of the facilities.

Proposed Comments

The attached draft letter to Paul DeFalco, Regional Administrator of EPA, reflects the consensus of the discussion which took place at the January 16 meeting of the APC. The recommendations are proposed to be reviewed against any new information which may be forthcoming from the local jurisdictions involved.

DRAFT LETTER - FOR DISCUSSION PURPOSES

Paul DeFalco, Jr., Regional Administrator
U.S. Environmental Protection Agency, Region IX
215 Fremont Street
San Francisco, CA 94105

Subject: Comments on Draft Environmental Impact Statement, Proposed Wastewater Treatment Facilities, South Shore, Lake Tahoe Basin

Dear Mr. DeFalco:

Thank you for the opportunity to review the Draft Environmental Impact Statement (DEIS) for the proposed wastewater treatment facilities on the South Shore of the Lake Tahoe Basin. The DEIS has been reviewed by the Advisory Planning Commission and Governing Body of the Tahoe Regional Planning Agency, as well as local jurisdictions having authority within the service areas of the South Tahoe Public Utility District (STPUD) and the Douglas County Sewer Improvement District (DCSID).

Our review of the DEIS was based upon our A-95 Clearinghouse function, as well as requests from both affected sanitation districts to support their efforts to alleviate existing deficiencies in treatment abilities in order to meet revised waste discharge requirements. With regard to the A-95 function, the Agency was looking primarily to the consistency of the proposed expansion of the STPUD plant and upgrading of DCSID's facilities with the Agency's adopted plans as well as the validity of the assessment of impacts which may result from these actions. The second area of Agency concern is with regard to the desirability and effectiveness of incorporating mitigation measures into the Agency's operations and plans. Both STPUD and DCSID have requested the Agency's assistance in pursuing the implementation of appropriate mitigation measures.

Consistency With Agency Plans

The Agency's controlling document with respect to wastewater treatment facility improvements is the Lake Tahoe Basin Water Quality Management Plan as adopted by the Governing Body on January 25, 1978, and certified by the Governor of Nevada. The plan was rejected by the California Water Resources Control Board (SWRCB) and a revised plan has been remanded to TRPA by the SWRCB for adoption. The Agency has not yet had an opportunity to review the 208 Plan as recommended by the SWRCB and the EPA has not yet taken a position with regard to approval of either Water Quality Management Plan.

The proposed expansion of the STPUD facility to 10.0 million gallons per day (MGD) is consistent with the waste management program outlined in the Agency's Water Quality Management Plan. The required plant capacity under buildout of the Agency's General Plan would range from 9.3 MGD to 12.4 MGD depending on the extent of implementation of water conservation measures.

The upgrading of the DCSID plant calls for restoring the plant to its original design capacity of 3.0 MGD. This is consistent with the capacity which the Agency already recognized in the Waste Management Plan section of the 208 Plan. The required treatment capacity upon buildout of the Agency's General Plan would require a treatment capacity from 2.9 MGD to 3.9 MGD depending on the extent of implementation of water conservation measures.

Most importantly, the upgrading and expansion of the two facilities would permit both facilities to meet the revised waste discharge requirements of the Lahontan Regional Water Quality Control Board and the Nevada Division of Environmental Protection. The Agency's Subdivision Ordinance requires each unit within a subdivision to have a connection to a sanitary sewage facility that has the capacity for collection, treatment and export of sewage from the Basin as required by governmental entities with jurisdiction over such matters.

Growth Scenarios

The DEIS assumes that there is a direct relationship between federal funding of wastewater treatment plant improvements and growth which would take place as a result of those improvements. The DEIS analyzes five growth scenarios, each of which can be correlated with the degree of expansion of wastewater facilities. Although building activity may be limited as a result of limiting sewage treatment capacity, population growth may not be similarly affected because of increased utilization of existing structures and other related phenomena such as overcrowded housing.

In analyzing the DEIS, TRPA took the approach that the impact analysis was really an assessment of the Agency's General Plan and other controlling documents affecting land use. If an impact was identified, it was viewed from the resource base standpoint. In other words, the resource base of the region establishes threshold limitations which may be violated even if controlling land use documents are adhered to within the Basin. The adverse impact areas assist in identifying measures which should be taken to mitigate impacts.

No Action Alternative

The impacts of the no action alternative do not appear to have been adequately analyzed in the DEIS. The extent that the adverse impacts described in the DEIS would occur without federal involvement in upgrading and expanding wastewater treatment facilities is not adequately disclosed in the document as required under the National Environmental Policy Act. Any direct adverse impacts from a failure to provide for improved wastewater treatment facilities were not included in the analysis of alternatives.

(DRAFT)

Impacts and Mitigation Measures

WATER QUALITY

Impact Assessment - The Agency generally concurs with the adverse impacts on water quality as identified in the DEIS. These impacts have been described in the Agency's Water Quality Management Plan. However, the assessment appears to assume a one-to-one correlation between impacts occurring as a result of development of structures on existing lots in high hazard lands or stream environment zones (SEZ's) and the resulting impacts on water quality. Given our current knowledge that the majority of erosion problems within the Basin are the result of eroding disturbed areas along roadsides and poor roadside drainage, the impacts on water quality projected from ultimate buildout may overstate the effects of buildout of single family residences in these areas. Similarly, the effectiveness of imposing development restrictions on high hazard lands and SEZ's without addressing existing erosion and drainage problems resulting from road construction may overstate the case for further regulating development in these areas. In the opinion of TRPA, an effective program for water quality management must address both existing problem areas and controls for any new development.

Mitigation Measures - With regard to mitigation measures for water quality impacts, the TRPA will commit to implementing the following measures with responsible entities as noted:

Water Quality Mitigation Measures	Responsible Entities	Notes
Protect stream environment zones	TRPA-all Basin lands; CTRPA-California lands; U.S. Forest Service-federal lands	The existing TRPA Grading Ordinance requires BMP's for single family construction within SEZ's. (See Handbook of BMP's.) This measure only effective in combination with measures listed below.
Employ BMP's to control erosion	U.S. Forest Service-federal lands; local governments-primary responsibility for private lands; TRPA, CTRPA, Lahontan, NDEP-oversight responsibility	Enforcement of existing ordinances would suffice
Institute evaluative point system and limit on number of sewer connections to control timing and location of growth	Local governments, TRPA, CTRPA-develop criteria for evaluative point system Local governments-implement system in cooperation with special districts	May have limited application in Douglas County

(DRAFT)

Water Quality Mitigation Measures	Responsible Entities	Notes
Implement water quality monitoring program	All entities as listed in DEIS	Not mitigation but will assist in evaluating effectiveness of other efforts
Purchase lots in environmentally sensitive areas	Local governments, TRPA, CTRPA - develop priorities and criteria for acquisition Local governments, States, Federal Government - acquisition entities	Mechanisms and financing methods should include Santini Bill and other options
Compensate landowners who experience loss because of development restrictions	Responsible entities need to be identified	Ought to be a criteria and not identified as mitigation
Implement system to transfer development rights	Local governments, TRPA, CTRPA	Merits further study and consideration
Implement corrective measures for existing high erosion hazard and SEZ development	Local governments, TRPA, CTRPA, Lahontan, NDEP	Merits further consideration as "offset" policy to facilitate new development

SEISMIC SAFETY

The implementation of land use controls to guard against seismic hazards is not feasible given the level of detail of existing information. The existing Uniform Building Code for Seismic Hazard Zone 3 provides adequate mitigation.

BIOLOGICAL RESOURCES

Impact Assessment - The TRPA generally concurs with the impact analysis regarding development impacts and biological resources.

Mitigation Measures - The TRPA will commit to implementation of the following mitigation measures as noted:

Biological Resource Mitigation Measures	Responsible Entities	Notes
Control recreational use of wildlife habitat	Local governments, TRPA, California and Nevada Fish & Game Departments, U.S. Forest Service	
Protect against sewage spills	U.S. EPA, Sanitation Districts	Fund necessary improvements

(DRAFT)

Biological Resource Mitigation Measures	Responsible Entities	Notes
Protect active osprey nests	All entities as noted in DEIS	
Require biological inventories for rare and endangered species	All entities as noted in DEIS	Already required in California
Require adequate construction and management practices to protect habitat	All entities as noted in DEIS	
Protect SEZ's	(See Water Quality)	

NOISE

Impact Assessment - The Agency generally concurs with the impact assessment with regard to increases in ambient noise levels which would occur as a result of further development. The relationship of transportation control strategies to noise abatement mitigation measures is not adequately addressed. Although noise levels at peak periods may not be reduced, strategies to reduce traffic volumes may decrease the direction of peak noise levels.

Mitigation Measures - The Agency will commit to implementation of mitigation measures for noise as follows:

Noise Mitigation Measures	Responsible Entities	Notes
Implement noise control ordinance	Local governments, TRPA, CTRPA	Already implemented. Enforceability difficult.
Revise zoning ordinance to prevent incompatible land uses	Local governments, TRPA, CTRPA	
Establish special permit procedures to implement noise reduction measures	Developers, local governments, TRPA, CTRPA	
Construct noise barriers along major highways	Caltrans, Nevada Department of Transportation	Not feasible except in very limited applications
Implement transportation measures	(See Transportation)	

(DRAFT)

AIR QUALITY

Impact Assessment - The Agency generally concurs with the projected impacts as described in the DEIS.

Mitigation Measures - The Agency has already committed to implementation of those measures contained in the Nonattainment Plan as recommended for adoption by the Nevada Environmental Commission.

VISUAL RESOURCES

Visual Resources Mitigation Measures	Responsible Entities	Notes
Implement measures protecting water and air quality	(See Water Quality and Air Quality)	
Adopt urban design plan with implementing ordinances for design review	Local governments, TRPA, CTRPA, U.S. Forest Service	
Establish National Scenic Area (N.S.A.)	U.S. Forest Service, U.S. Congress	Further study of N.S.A. proposals required before Agency can take a position

HOUSING

Impact Assessment - The housing analysis fails to evaluate the impact of the no action alternative on housing supply and availability within the Basin and the linkage of increased traffic, energy consumption and air quality problems which would result from "spillover" outside of the Tahoe Basin.

The impact analysis also failed to identify current deficiencies in sewer permit allocation systems which encourage the construction of single family residences in areas classified as High Density Residential. The loss of the integrity of higher density neighborhoods has resulted in a lower supply of resident housing at greater distances from work and activity centers. Due to current development restrictions in California and economic conditions in both states, construction of new apartment or rental type units has been virtually cut off. The viability of public transportation mechanisms and air quality control strategies is also lessened because of lower densities actually occurring within areas suitable for higher density construction.

Mitigation Measures - The mitigation measures offered in the DEIS include a provision to encourage development of moderately priced housing in nearby areas outside of the Tahoe Basin. Rather than dealing with housing problems by exporting those needs out of the Tahoe Basin, the Agency will commit to the following mitigation measures:

(DRAFT)

Housing Mitigation Measures	Responsible Entities	Notes
Create high density apartment (HDA) zone to preserve existing rental stock and program development of rental units	Local governments, TRPA, CTRPA	Proposed zone prohibits construction of single family dwellings in HDA zones
Redistribute development through transfer of development rights	Local governments, TRPA, CTRPA	Deserves further study. Could be used in conjunction with HDA designation
Encourage housing rehabilitation loans and grants	Local governments	
Improve neighborhood facilities to encourage private sector investments	Local governments	
Institute incentives for new development to include moderately-priced housing	Local governments, TRPA, CTRPA	
Institute incentives for major employers to expand housing stock when expanding operation	Local governments, TRPA, CTRPA	Limiting only to casinos does not address impact of other major employers
Coordinate regionwide land use policies	Local, regional, state and federal agencies	

TRANSPORTATION

Impact Assessment - The Agency generally concurs with the impact assessment with regard to increased demands on transportation systems.

Mitigation Measures - The mitigation measures offered in the DEIS substantially overlap recommendations of the Highway 50 Corridor Study prepared by JHK & Associates. Resolutions of support for the recommendations of the study have been adopted by all affected local jurisdictions. The Agency could therefore commit to implementation of the recommendations of that study.

RECREATION

Impact Assessment - The DEIS correctly identifies increased recreation conflicts arising due to increased use of the Basin.

Mitigation Measures - The Agency will commit to implementation of the following mitigation measures:

(DRAFT)

Recreation Mitigation Measures	Responsible Entities	Notes
Adopt ordinances to protect SEZ's and high hazard lands	(See Water Quality)	
Establish National Recreation Area (N.R.A.)	U.S. Congress	Agency can take no position until further details are available. The objectives of an N.R.A. vs. an N.S.A. may substantially differ.
Adopt Nonattainment Plan measures	(See Air Quality)	
Adopt noise standards	(See Noise)	
Acquire land for public recreational use	U.S. Forest Service, California and Nevada State Parks, local government programs	

PUBLIC FACILITIES/FISCAL CONCERNS

Impact Assessment - The DEIS generally identifies areas of impacts on public facilities with regard to capacity limitations or other needed improvements. However, to be more useful, the document should more thoroughly analyze limitations on key public services such as water supply which are directly related to the proposal. The conclusion that water supplies may limit growth due to compact limitations can probably be supported, but a more immediate problem is the allocation of available supplies amongst competing water suppliers, particularly in Douglas County.

The fiscal impact analysis in the DEIS relates more to impacts of growth than to the impacts of decisions to not allow growth. Again, the impacts of the no action alternative on fiscal matters are not evaluated. Many of the conclusions regarding fiscal impacts of new growth would relate more to a community which is considering substantial new subdivided lands rather than in-filling of existing subdivided lands.

Mitigation Measures - The Agency will commit to working towards implementation of the following mitigation measures:

Public Facilities Mitigation Measures	Responsible Entities	Notes
Consolidate water districts	Local governments, utility districts	Will assist in alleviating "spot" water shortages
Implement water conservation measures	Local governments, utility districts	
Retrofit water conservation	Private	
Mandatory water conservation on new construction	Utility districts, local governments, TRPA, CTRPA	

(DRAFT)

Public Facilities Mitigation Measures	Responsible Entities	Notes
In-Basin reuse of waste water	DCSID, STPUD, Lahontan, NDEP	
Make minimum use of grants to reduce local costs	EPA, States, DCSID, STPUD	
Make improvements to the electrical supply system		
Revise building codes for energy conservation	Local governments	

The Tahoe Regional Planning Agency recognizes that this response to the DEIS serves only as an outline of actions which could be taken to mitigate the adverse impacts described. We look forward to a continuing working relationship with the Environmental Protection Agency to ensure that all of your concerns identified have been adequately satisfied. Please keep the Agency informed regarding your decision with regard to funding on this most important matter.

Sincerely,

Jim Henry, Chairman
Tahoe Regional Planning Agency

JH:PAO:jf

cc: City of South Lake Tahoe
El Dorado County
Douglas County
Nevada Division of Environmental Protection
Lahontan Regional Water Quality Control Board
South Tahoe Public Utility District
Douglas County Sewer Improvement District

(HE-158) 22

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NOTICE OF MEETINGS OF THE NOMINATING COMMITTEE AND GOVERNING BODY OF THE TAHOE REGIONAL PLANNING AGENCY

NOTICE IS HEREBY GIVEN that on February 27, 1980, at 9:00 a.m. at the hearing room of the Tahoe Regional Planning Agency, located at 2155 South Avenue, South Lake Tahoe, California, the Nominating Committee of the Tahoe Regional Planning Agency will conduct a meeting to nominate officers of said agency.

NOTICE IS FURTHER GIVEN that on February 27, 1980, at 10:00 a.m. at the same hearing room, the Governing Body of said agency will conduct its regular meeting. The agenda for said meeting is attached to and made a part of this notice.

Dated: February 15, 1980

By: Philip A. Overeynder, Manager
Tahoe Regional Planning Agency

(HE-158) 22

TAHOE REGIONAL PLANNING AGENCY
GOVERNING BODY

TRPA Office, 2155 South Avenue
South Lake Tahoe, California

February 27, 1980
10:00 a.m.

NOTE: There will be a meeting of the Nominating Committee at 9:00 a.m., February 27, 1980, to nominate officers of the Tahoe Regional Planning Agency Governing Body. The regular meeting will commence at 10:00 a.m.

PRELIMINARY AGENDA

I CALL TO ORDER AND DETERMINATION OF QUORUM

II APPROVAL OF AGENDA

III DISPOSITION OF MINUTES

IV CONSENT CALENDAR

V ORDINANCES - Second Readings

A. Ordinance Amending the Land Use Ordinance to Establish a Land Capability Classification for Man-Modified Areas

B. Ordinance Amending the Regional Plan for Properties Owned by Carole Terry, Douglas County

C. Ordinance Amending the Regional Plan for Property Owned by Tony Parina, Douglas County

VI AGENCY REVIEW

A. Tahoe Carriage, Administrative Permit for a Commercial Development, City of South Lake Tahoe

B. Harrah's Tahoe, Finding of Conformance With Previous Approvals, Douglas County

VII CLEARINGHOUSE

✓ U.S. Environmental Protection Agency, Draft Environmental Impact Statement, Proposed Wastewater Treatment Facilities, South Shore, Lake Tahoe Basin

VIII PLANNING MATTERS

A. Work Program - General Plan Update, Threshold Carrying Capacities, and Budget Requirements

B. Land Use Ordinance Amendments - High Density Apartment Land Use District and Standards for Timesharing, Interval Ownership Condominiums

C. Information Necessary for Applicants to Submit When Requesting an Administrative Permit for Additional Land Coverage Pursuant to Section 8.25 of the Land Use Ordinance

D. State of California, State Water Resources Control Board, Draft Water Quality Plan: Lake Tahoe Basin

E. Implementation of Notice Requirements to Affected Property Owners for Projects Approved at Staff Level

IX REPORTS

A. Appeals of Staff Decisions

B. Field Enforcement Report

C. Agency Manager Report

D. Legal Counsel Report

E. Governing Body Members

1. Election of New Agency Officers

2. Appointments to the Advisory Planning Commission

F. Public Interest Comments

X RESOLUTIONS

For Past Board Member Tom Cooke

XI PENDING MATTERS

Executive Session

1. Interviews With Applicants for Executive Director Position

XII CORRESPONDENCE

XIII OTHER BUSINESS

XIV ADJOURNMENT

CONSENT CALENDAR

Item	Recommendation
Glenbrook, Modification of Previous Approvals, Douglas County	Approval
U.S. Forest Service, Clearinghouse Review, Acquisition of 1,240 Acres Near Glenbrook, Douglas County, from the Trust for Public Lands	Support

(HE-158)22

TAHOE REGIONAL PLANNING AGENCY

MEMORANDUM

DATE: February 19, 1980

TO: The TRPA Governing Board

FROM: The Staff

SUBJECT: Clearinghouse Comments on Draft Environmental Impact Statement (DEIS), Proposed Wastewater Facilities, South Shore, Lake Tahoe Basin

Background

The Advisory Planning Commission considered comments on the above-referenced document to be forwarded to the Environmental Protection Agency at a regular adjourned meeting held on January 16, 1980. Agency staff reported the thrust of these comments to the Governing Board at the January 23 meeting. Staff was directed to bring the matter before the APC so that the comments could be finalized for consideration by the Governing Board at the February meeting. The staff was further directed to coordinate the APC comments with those of Douglas County and the "Mitigation Measures Committee" from entities within El Dorado County and the City of South Lake Tahoe.

Local Government Comments and Actions

Mitigation Task Force - The mitigation task force is composed of entities within the service area of the South Tahoe Public Utility District (STPUD). The mitigation task force viewed the DEIS as the stimulus for a much broader plan for long-range improvements to the total environment of the Tahoe Basin. In response to the DEIS, the City of South Lake Tahoe, El Dorado County and the STPUD have prepared a draft memorandum of understanding.

The draft memorandum of understanding outlines existing authorities, plans, programs, and regulations of each involved entity and prescribes future actions to be taken by parties to the agreement. The mitigation task force has solicited comments on the draft memorandum of understanding and has requested the cooperation and assistance from regional, state and federal agencies in developing and carrying out these measures.

The draft memorandum of understanding commits support for mitigation measures which very closely correspond to those outlined in the attached draft comment letter.

Douglas County - Douglas County has developed a draft comment letter in response to the DEIS. Those comments will be reviewed by the Douglas County Commissioners on February 21 with regard to the Board's official position on the proposed comments.

Presently, the position of Douglas County staff is that it is improper for EPA to ask for commitments to implement specific mitigation measures prior to finalizing the EIS. The letter drafted by Douglas County staff conceptually supports the mitigation measures as outlined in the proposed comment letter from TRPA. However, Douglas County will not commit to any specific mitigation measures until the EIS is finalized.

Schedule

The Environmental Protection Agency (EPA) has extended its deadline for comments to February 29, 1980. EPA is seeking comments with regard to the conclusions of the report and commitments from jurisdictions within the Basin regarding implementation of the mitigation measures outlined in the DEIS. Actual implementation of the mitigation measures may take place after EPA makes the decision regarding federal funding for expansion and upgrading of the facilities.

Proposed Comments

The attached draft letter to Paul DeFalco, Regional Administrator of EPA, was unanimously approved by the APC for consideration by the Governing Board. Agency staff recommends that the comments be forwarded to the Environmental Protection Agency in support of the requested grant programs and local efforts to mitigate adverse environmental effects identified in the DEIS.

DRAFT LETTER - FOR DISCUSSION PURPOSES

Paul DeFalco, Jr., Regional Administrator
U.S. Environmental Protection Agency, Region IX
215 Fremont Street
San Francisco, CA 94105

Subject: Comments on Draft Environmental Impact Statement, Proposed Wastewater Treatment Facilities, South Shore, Lake Tahoe Basin

Dear Mr. DeFalco:

Thank you for the opportunity to review the Draft Environmental Impact Statement (DEIS) for the proposed wastewater treatment facilities on the South Shore of the Lake Tahoe Basin. The DEIS has been reviewed by the Advisory Planning Commission and Governing Body of the Tahoe Regional Planning Agency, as well as local jurisdictions having authority within the service areas of the South Tahoe Public Utility District (STPUD) and the Douglas County Sewer Improvement District (DCSID).

Our review of the DEIS was based upon our A-95 Clearinghouse function, as well as requests from both affected sanitation districts to support their efforts to alleviate existing deficiencies in treatment abilities in order to meet revised waste discharge requirements. With regard to the A-95 function, the Agency was looking primarily to the consistency of the proposed expansion of the STPUD plant and upgrading of DCSID's facilities with the Agency's adopted plans as well as the validity of the assessment of impacts which may result from these actions. The second area of Agency concern is with regard to the desirability and effectiveness of incorporating mitigation measures into the Agency's operations and plans. Both STPUD and DCSID have requested the Agency's assistance in pursuing the implementation of appropriate mitigation measures.

Consistency With Agency Plans

The Agency's controlling document with respect to wastewater treatment facility improvements is the Lake Tahoe Basin Water Quality Management Plan as adopted by the Governing Body on January 25, 1978, and certified by the Governor of Nevada. The plan was rejected by the California Water Resources Control Board (SWRCB) and a revised plan has been remanded to TRPA by the SWRCB for adoption. The Agency has not yet had an opportunity to review the 208 Plan as recommended by the SWRCB and the EPA has not yet taken a position with regard to approval of either Water Quality Management Plan.

The proposed expansion of the STPUD facility to 10.0 million gallons per day (MGD) is consistent with the waste management program outlined in the Agency's Water Quality Management Plan. The required plant capacity under buildout of the Agency's General Plan would range from 9.3 MGD to 12.4 MGD depending on the extent of implementation of water conservation measures.

(DRAFT)

The upgrading of the DCSID plant calls for restoring the plant to its original design capacity of 3.0 MGD. This is consistent with the capacity which the Agency already recognized in the Waste Management Plan section of the 208 Plan. The required treatment capacity upon buildout of the Agency's General Plan would require a treatment capacity from 2.9 MGD to 3.9 MGD depending on the extent of implementation of water conservation measures.

Most importantly, the upgrading and expansion of the two facilities would permit both facilities to meet the revised waste discharge requirements of the Lahontan Regional Water Quality Control Board and the Nevada Division of Environmental Protection. The Agency's Subdivision Ordinance requires each unit within a subdivision to have a connection to a sanitary sewage facility that has the capacity for collection, treatment and export of sewage from the Basin as required by governmental entities with jurisdiction over such matters.

Growth Scenarios

The DEIS assumes that there is a direct relationship between federal funding of wastewater treatment plant improvements and growth which would take place as a result of those improvements. The DEIS analyzes five growth scenarios, each of which can be correlated with the degree of expansion of wastewater facilities. Although building activity may be limited as a result of limiting sewage treatment capacity, population growth may not be similarly affected because of increased utilization of existing structures and other related phenomena such as overcrowded housing.

In analyzing the DEIS, TRPA took the approach that the impact analysis was really an assessment of the Agency's General Plan and other controlling documents affecting land use. If an impact was identified, it was viewed from the resource base standpoint. In other words, the resource base of the region establishes threshold limitations which may be violated even if controlling land use documents are adhered to within the Basin. The adverse impact areas assist in identifying measures which should be taken to mitigate impacts.

No Action Alternative

The impacts of the no action alternative do not appear to have been adequately analyzed in the DEIS. The extent that the adverse impacts described in the DEIS would occur without federal involvement in upgrading and expanding wastewater treatment facilities is not adequately disclosed in the document as required under the National Environmental Policy Act. Any direct adverse impacts from a failure to provide for improved wastewater treatment facilities were not included in the analysis of alternatives. This is a serious deficiency in the document and should be remedied prior to finalizing the EIS. Many of TRPA's comments with regard to this deficiency reflect the lack of adequate consideration with regard to the no action alternative.

(DRAFT)

Impacts and Mitigation Measures

WATER QUALITY

Impact Assessment - The Agency generally concurs with the adverse impacts on water quality as identified in the DEIS. These impacts have been described in the Agency's Water Quality Management Plan. However, the assessment appears to assume a one-to-one correlation between impacts occurring as a result of development of structures on existing lots in high hazard lands or stream environment zones (SEZ's) and the resulting impacts on water quality. Given our current knowledge that the majority of erosion problems within the Basin are the result of eroding disturbed areas along roadsides and poor roadside drainage, the impacts on water quality projected from ultimate buildout may overstate the effects of buildout of single family residences in these areas. Similarly, the effectiveness of imposing development restrictions on high hazard lands and SEZ's without addressing existing erosion and drainage problems resulting from road construction may overstate the case for further regulating development in these areas. In the opinion of TRPA, an effective program for water quality management must address both existing problem areas and controls for any new development.

Mitigation Measures - With regard to mitigation measures for water quality impacts, the TRPA will commit to implementing the following measures with responsible entities as noted:

Water Quality Mitigation Measures	Responsible Entities	Notes
Protect stream environment zones	TRPA-all Basin lands; CTRPA-California lands; U.S. Forest Service-federal lands	The existing TRPA Grading Ordinance requires BMP's for single family construction within SEZ's. (See Handbook of BMP's.) This measure only effective in combination with measures listed below.
Employ BMP's to to control erosion	U.S. Forest Service-federal lands; local governments-primary responsibility for private lands; TRPA, CTRPA, Lahontan, NDEP-oversight responsibility	Enforcement of existing ordinances would suffice
Institute evaluative point system and limit on number of sewer connections to control timing and location of growth	Local governments, TRPA, CTRPA-develop criteria for evaluative point system Local governments-implement system in cooperation with special districts	May have limited application in Douglas County

(DRAFT)

Water Quality Mitigation Measures	Responsible Entities	Notes
Implement water quality monitoring program	All entities as listed in DEIS	Not mitigation but will assist in evaluating effectiveness of other efforts
Purchase lots in environmentally sensitive areas	Local governments, TRPA, CTRPA - develop criteria and prioritization of environmentally sensitive areas Local governments, States, Federal Government - acquisition entities	Mechanisms and financing methods should include Santini Bill and other options
Compensate landowners who experience loss because of development restrictions	Responsible entities need to be identified	Ought to be a criteria and not identified as mitigation
Implement system to transfer development rights	Local governments, TRPA, CTRPA	Merits further study and consideration
Implement corrective measures for existing high erosion hazard and SEZ development	Local governments, TRPA, CTRPA, Lahontan, NDEP	Merits further consideration as "offset" policy to facilitate new development

SEISMIC SAFETY

The implementation of land use controls to guard against seismic hazards is not feasible given the level of detail of existing information. The existing Uniform Building Code for Seismic Hazard Zone 3 provides adequate mitigation.

BIOLOGICAL RESOURCES

Impact Assessment - The TRPA generally concurs with the impact analysis regarding development impacts and biological resources.

Mitigation Measures - The TRPA will commit to implementation of the following mitigation measures as noted:

Biological Resource Mitigation Measures	Responsible Entities	Notes
Control recreational use of wildlife habitat	Local governments, TRPA, California and Nevada Fish & Game Departments, U.S. Forest Service	
Protect against sewage spills	U.S. EPA, Sanitation Districts	Fund necessary improvements

(DRAFT)

Biological Resource Mitigation Measures	Responsible Entities	Notes
Protect active osprey nests	All entities as noted in DEIS	
Require biological inventories for rare and endangered species	All entities as noted in DEIS	Already required in California
Require adequate construction and management practices to protect habitat	All entities as noted in DEIS	
Protect SEZ's	(See Water Quality)	

NOISE

Impact Assessment - The Agency generally concurs with the impact assessment with regard to increases in ambient noise levels which would occur as a result of further development. The relationship of transportation control strategies to noise abatement mitigation measures is not adequately addressed. Although noise levels at peak periods may not be reduced, strategies to reduce traffic volumes may decrease the direction of peak noise levels.

Mitigation Measures - The Agency will commit to implementation of mitigation measures for noise as follows:

Noise Mitigation Measures	Responsible Entities	Notes
Implement noise control ordinance	Local governments, TRPA, CTRPA	Already implemented. Enforceability difficult.
Revise zoning ordinance to prevent incompatible land uses	Local governments, TRPA, CTRPA	
Establish special permit procedures to implement noise reduction measures	Developers, local governments, TRPA, CTRPA	
Construct noise barriers along major highways	Caltrans, Nevada Department of Transportation	Not feasible except in very limited applications
Implement transportation measures	(See Transportation)	

(DRAFT)

AIR QUALITY

Impact Assessment - The Agency generally concurs with the projected impacts as described in the DEIS.

Mitigation Measures - The Agency has already committed to implementation of those measures contained in the Nonattainment Plan as recommended for adoption by the Nevada Environmental Commission.

VISUAL RESOURCES

Visual Resources Mitigation Measures	Responsible Entities	Notes
Implement measures protecting water and air quality	(See Water Quality and Air Quality)	
Adopt urban design plan with implementing ordinances for design review	Local governments, TRPA, CTRPA, U.S. Forest Service	
Establish National Scenic Area (N.S.A.)	U.S. Forest Service, U.S. Congress	Further study of N.S.A. proposals required before Agency can take a position

HOUSING

Impact Assessment - The housing analysis fails to evaluate the impact of the no action alternative on housing supply and availability within the Basin and the linkage of increased traffic, energy consumption and air quality problems which would result from "spillover" outside of the Tahoe Basin.

The impact analysis also failed to identify current deficiencies in sewer permit allocation systems which encourage the construction of single family residences in areas classified as High Density Residential. The loss of the integrity of higher density neighborhoods has resulted in a lower supply of resident housing at greater distances from work and activity centers. Due to current development restrictions in California and economic conditions in both states, construction of new apartment or rental type units has been virtually cut off. The viability of public transportation mechanisms and air quality control strategies is also lessened because of lower densities actually occurring within areas suitable for higher density construction.

Mitigation Measures - The mitigation measures offered in the DEIS include a provision to encourage development of moderately priced housing in nearby areas outside of the Tahoe Basin. Rather than dealing with housing problems by exporting those needs out of the Tahoe Basin, the Agency will commit to the following mitigation measures:

(DRAFT)

Housing Mitigation Measures	Responsible Entities	Notes
Create high density apartment (HDA) zone to preserve existing rental stock and program development of rental units	Local governments, TRPA, CTRPA	Proposed zone prohibits construction of single family dwellings in HDA zones
Redistribute development through transfer of development rights	Local governments, TRPA, CTRPA	Deserves further study. Could be used in conjunction with HDA designation
Encourage housing rehabilitation loans and grants	Local governments	
Improve neighborhood facilities to encourage private sector investments	Local governments	
Institute incentives for new development to include moderately-priced housing	Local governments, TRPA, CTRPA	
Institute incentives for major employers to expand housing stock when expanding operation	Local governments, TRPA, CTRPA	Limiting only to casinos does not address impact of other major employers
Coordinate regionwide land use policies	Local, regional, state and federal agencies	

TRANSPORTATION

Impact Assessment - The Agency generally concurs with the impact assessment with regard to increased demands on transportation systems.

Mitigation Measures - The mitigation measures offered in the DEIS substantially overlap recommendations of the Highway 50 Corridor Study prepared by JHK & Associates. Resolutions of support for the recommendations of the study have been adopted by all affected local jurisdictions. The Agency could therefore commit to implementation of the recommendations of that study.

RECREATION

Impact Assessment - The DEIS correctly identifies increased recreation conflicts arising due to increased use of the Basin.

Mitigation Measures - The Agency will commit to implementation of the following mitigation measures:

(DRAFT)

Recreation Mitigation Measures	Responsible Entities	Notes
Adopt ordinances to protect SEZ's and high hazard lands	(See Water Quality)	
Establish National Recreation Area (N.R.A.)	U.S. Congress	Agency can take no position until further details are available. The objectives of an N.R.A. vs. an N.S.A. may substantially differ.
Adopt Nonattainment Plan measures	(See Air Quality)	
Adopt noise standards	(See Noise)	
Acquire land for public recreational use	U.S. Forest Service, California and Nevada State Parks, local government programs	

PUBLIC FACILITIES/FISCAL CONCERNS

Impact Assessment - The DEIS generally identifies areas of impacts on public facilities with regard to capacity limitations or other needed improvements. However, to be more useful, the document should more thoroughly analyze limitations on key public services such as water supply which are directly related to the proposal. The conclusion that water supplies may limit growth due to compact limitations can probably be supported, but a more immediate problem is the allocation of available supplies amongst competing water suppliers, particularly in Douglas County.

The fiscal impact analysis in the DEIS relates more to impacts of growth than to the impacts of decisions to not allow growth. Again, the impacts of the no action alternative on fiscal matters are not evaluated. Many of the conclusions regarding fiscal impacts of new growth would relate more to a community which is considering substantial new subdivided lands rather than in-filling of existing subdivided lands.

Mitigation Measures - The Agency will commit to working towards implementation of the following mitigation measures:

Public Facilities Mitigation Measures	Responsible Entities	Notes
Consolidate water districts	Local governments, utility districts	Will assist in alleviating "spot" water shortages.
Implement water conservation measures	Local governments, utility districts	
Retrofit water conservation	Private	

(DRAFT)

Public Facilities Mitigation Measures	Responsible Entities	Notes
Mandatory water conservation on new construction	Utility districts, local governments, TRPA, CTRPA	
In-Basin reuse of wastewater	DCSID, STPUD, Lahontan, NDEP	
Make maximum use of grants to reduce local costs	EPA, States, DCSID, STPUD	
Make improvements to the electrical supply system	-	
Revise building codes for energy conservation	Local governments	

The Tahoe Regional Planning Agency recognizes that this response to the DEIS serves only as an outline of actions which could be taken to mitigate the adverse impacts described. We look forward to a continuing working relationship with the Environmental Protection Agency to ensure that all of your concerns identified have been adequately satisfied. Please keep the Agency informed regarding your decision with regard to funding on this most important matter.

Sincerely,

Jim Henry, Chairman
Tahoe Regional Planning Agency

JH:PAO:jf

cc: City of South Lake Tahoe
El Dorado County
Douglas County
Nevada Division of Environmental Protection
Lahontan Regional Water Quality Control Board
South Tahoe Public Utility District
Douglas County Sewer Improvement District

(HE-158) 21 & 22 W-1

western union **Telegram**

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ICS IPMRNCZ CSP

9165410246 TDRN SOUTH LAKE TAHOE CA 46 02-29 0450P EST

PMS PAUL DEFALCO JR REGIONAL ADMINISTRATOR EPA REGION 9, FONE
4155562320, FONE AND DELIVER, DLR
215 FREMONT ST
SAN FRANCISCO CA 94105

PLEASE CONSIDER TAHOE REGIONAL PLANNING AGENCY'S DRAFT LETTER TO YOU ON 2/19/80 AS TRPA'S OFFICIAL COMMENT WITH THE ADDITION THAT PRIORITIZATION OF LOTS FOR PURCHASE PURPOSES IS FOR THE USE OF ENTITIES OTHER THAN REGIONAL GOVERNMENTS (PAGE 4). LETTER SIGNED BY CHAIRMAN HENRY HAS BEEN TRANSMITTED

PHIL OVEREYNDER EXECUTIVE DIRECTOR TRPA

NNNN

Unread

SF-1201 (R5-69)

(HE-158) 21 AND 22

RECORD OF COMMUNICATION

☐ PHONE CALL ☐ DISCUSSION ☐ FIELD TRIP ☐ CONFERENCE
☐ OTHER (SPECIFY)

(Record of item checked above)

TO: JANET ROSATI

FROM: MEL OVEREYNDER

DATE 2/[illegible]/80

TIME 10:00 a.m.

SUBJECT
ADDITIONAL COMMENTS ON DRAFT EIS

SUMMARY OF COMMUNICATION

Mel Overeynder of the Lake Region's Planning Agency called. They have a sentence they wish to add to comments we have received from them. Sentence would be placed on page 4 under the "Notes" column, end of second paragraph.

Overeynder wanted to make sure sentence included in official comments since today is deadline for EPA to receive them.

CONCLUSIONS, ACTION TAKEN OR REQUIRED

Overeynder will send telegram with sentence he wishes to add to record. As long as telegram is dated today, it need not be received by EPA today to be included in record.

[illegible] has been cleared through Matt Walker.

INFORMATION COPIES
TO: [illegible] - Linda, Project file

EPA Form 1300-6 (7-72) REPLACES EPA HQ FORM 5300-3 WHICH MAY BE USED UNTIL SUPPLY IS EXHAUSTED.

Note: Letter dated February 27, 1980, from Tahoe Regional Planning Agency, signed by Jim Henry, Chairman, and received March 3, 1980, is the original, conforming copy of a letter submitted in draft attached to written comments Nos. 21 and 22.

TAHOE REGIONAL PLANNING AGENCY
P.O. Box 8896
South Lake Tahoe, California 95731
2155 South Avenue
(916) 541-0246

VED
REGION

February 27, 1980

Mr. Paul DeFalco, Jr., Regional Administrator
U.S. Environmental Protection Agency, Region IX
215 Fremont Street
San Francisco, CA 94105

Subject: Comments on Draft Environmental Impact Statement, Proposed Wastewater Treatment Facilities, South Shore, Lake Tahoe Basin

Dear Mr. DeFalco:

Thank you for the opportunity to review the Draft Environmental Impact Statement (DEIS) for the proposed wastewater treatment facilities on the South Shore of the Lake Tahoe Basin. The DEIS has been reviewed by the Advisory Planning Commission and Governing Body of the Tahoe Regional Planning Agency, as well as local jurisdictions having authority within the service areas of the South Tahoe Public Utility District (STPUD) and the Douglas County Sewer Improvement District (DCSID).

Our review of the DEIS was based upon our A-95 Clearinghouse function, as well as requests from both affected sanitation districts to support their efforts to alleviate existing deficiencies in treatment abilities in order to meet revised waste discharge requirements. With regard to the A-95 function, the Agency was looking primarily to the consistency of the proposed expansion of the STPUD plant and upgrading of DCSID's facilities with the Agency's adopted plans as well as the validity of the assessment of impacts which may result from these actions. The second area of Agency concern is with regard to the desirability and effectiveness of incorporating mitigation measures into the Agency's operations and plans. Both STPUD and DCSID have requested the Agency's assistance in pursuing the implementation of appropriate mitigation measures.

Consistency With Agency Plans

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The proposed expansion of the STPUD facility to 10.0 million gallons per day (MGD) is consistent with the waste management program outlined in the Agency's Water Quality Management Plan. The required plant capacity under buildout of the Agency's General Plan would range from 9.3 MGD to 12.4 MGD depending on the extent of implementation of water conservation measures.

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Most importantly, the upgrading and expansion of the two facilities would permit both facilities to meet the revised waste discharge requirements of the Lahontan Regional Water Quality Control Board and the Nevada Division of Environmental Protection. The Agency's Subdivision Ordinance requires each unit within a subdivision to have a connection to a sanitary sewage facility that has the capacity for collection, treatment and export of sewage from the Basin as required by governmental entities with jurisdiction over such matters.

Growth Scenarios

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In analyzing the DEIS, TRPA took the approach that the impact analysis was really an assessment of the Agency's General Plan and other controlling documents affecting land use. If an impact was identified, it was viewed from the resource base standpoint. In other words, the resource base of the region establishes threshold limitations which may be violated even if controlling land use documents are adhered to within the Basin. The adverse impact areas assist in identifying measures which should be taken to mitigate impacts.

No Action Alternative

The impacts of the no action alternative do not appear to have been adequately analyzed in the DEIS. The extent that the adverse impacts described in the DEIS would occur without federal involvement in upgrading and expanding wastewater treatment facilities is not adequately disclosed in the document as required under the National Environmental Policy Act. Any direct adverse impacts from a failure to provide for improved wastewater treatment facilities were not included in the analysis of alternatives. This is a serious deficiency in the document and should be remedied prior to finalizing the EIS. Many of TRPA's comments with regard to this deficiency reflect the lack of adequate consideration with regard to the no action alternative.

Impacts and Mitigation Measures

WATER QUALITY

Impact Assessment - The Agency generally concurs with the adverse impacts on water quality as identified in the DEIS. These impacts have been described in the Agency's Water Quality Management Plan. However, the assessment appears to assume a one-to-one correlation between impacts occurring as a result of development of structures on existing lots in high hazard lands or stream environment zones (SEZ's) and the resulting impacts on water quality. Given our current knowledge that the majority of erosion problems within the Basin are the result of eroding disturbed areas along roadsides and poor roadside drainage, the impacts on water quality projected from ultimate buildout may overstate the effects of buildout of single family residences in these areas. Similarly, the effectiveness of imposing development restrictions on high hazard lands and SEZ's without addressing existing erosion and drainage problems resulting from road construction may overstate the case for further regulating development in these areas. In the opinion of TRPA, an effective program for water quality management must address both existing problem areas and controls for any new development.

Mitigation Measures - With regard to mitigation measures for water quality impacts, the TRPA will commit to implementing the following measures with responsible entities as noted:

Water Quality Mitigation Measures	Responsible Entities	Notes
Protect stream environment zones	TRPA-all Basin lands; CTRPA-California lands; U.S. Forest Service-federal lands	The existing TRPA Grading Ordinance requires BMP's for single family construction within SEZ's. (See Handbook of BMP's.) This measure only effective in combination with measures listed below.
Employ BMP's to to control erosion	U.S. Forest Service-federal lands; local governments-primary responsibility for private lands; TRPA, CTRPA, Lahontan, NDEP-oversight responsibility	Enforcement of existing ordinances would suffice
Institute evaluative point system and limit on number of sewer connections to control timing and location of growth	Local governments, TRPA, CTRPA-develop criteria for evaluative point system Local governments-implement system in cooperation with special districts	May have limited application in Douglas County

Water Quality Mitigation Measures	Responsible Entities	Notes
Implement water quality monitoring program	All entities as listed in DEIS	Not mitigation but will assist in evaluating effectiveness of other efforts
Purchase lots in environmentally sensitive areas	Local governments, TRPA, CTRPA - develop criteria and prioritization of environmentally sensitive areas Local governments, States, Federal Government - acquisition entities	Mechanisms and financing methods should include Santini Bill and other options. Prioritization is for the use of entities other than regional governments.
Compensate landowners who experience loss because of development restrictions	Responsible entities need to be identified	Ought to be a criteria and not identified as mitigation
Implement system to transfer development rights	Local governments, TRPA, CTRPA	Merits further study and consideration
Implement corrective measures for existing high erosion hazard and SEZ development	Local governments, TRPA, CTRPA, Lahontan, NDEP	Merits further consideration as "offset" policy to facilitate new development

SEISMIC SAFETY

The implementation of land use controls to guard against seismic hazards is not feasible given the level of detail of existing information. The existing Uniform Building Code for Seismic Hazard Zone 3 provides adequate mitigation.

BIOLOGICAL RESOURCES

Impact Assessment - The TRPA generally concurs with the impact analysis regarding development impacts and biological resources.

Mitigation Measures - The TRPA will commit to implementation of the following mitigation measures as noted:

Biological Resource Mitigation Measures	Responsible Entities	Notes
Control recreational use of wildlife habitat	Local governments, TRPA, California and Nevada Fish & Game Departments, U.S. Forest Service	
Protect against sewage spills	U.S. EPA, Sanitation Districts	Fund necessary improvements

Biological Resource Mitigation Measures	Responsible Entities	Notes
Protect active osprey nests	All entities as noted in DEIS	
Require biological inventories for rare and endangered species	All entities as noted in DEIS	Already required in California
Require adequate construction and management practices to protect habitat	All entities as noted in DEIS	
Protect SEZ's	(See Water Quality)	

NOISE

Impact Assessment - The Agency generally concurs with the impact assessment with regard to increases in ambient noise levels which would occur as a result of further development. The relationship of transportation control strategies to noise abatement mitigation measures is not adequately addressed. Although noise levels at peak periods may not be reduced, strategies to reduce traffic volumes may decrease the direction of peak noise levels.

Mitigation Measures - The Agency will commit to implementation of mitigation measures for noise as follows:

Noise Mitigation Measures	Responsible Entities	Notes
Implement noise control ordinance	Local governments, TRPA, CTRPA	Already implemented. Enforceability difficult.
Revise zoning ordinance to prevent incompatible land uses	Local governments, TRPA, CTRPA	
Establish special permit procedures to implement noise reduction measures	Developers, local governments, TRPA, CTRPA	
Construct noise barriers along major highways	Caltrans, Nevada Department of Transportation	Not feasible except in very limited applications
Implement transportation measures	(See Transportation)	

AIR QUALITY

Impact Assessment - The Agency generally concurs with the projected impacts as described in the DEIS.

Mitigation Measures - The Agency has already committed to implementation of those measures contained in the Nonattainment Plan as recommended for adoption by the Nevada Environmental Commission.

VISUAL RESOURCES

Visual Resources Mitigation Measures	Responsible Entities	Notes
Implement measures protecting water and air quality	(See Water Quality and Air Quality)	
Adopt urban design plan with implementing ordinances for design review	Local governments, TRPA, CTRPA, U.S. Forest Service	
Establish National Scenic Area (N.S.A.)	U.S. Forest Service, U.S. Congress	Further study of N.S.A. proposals required before Agency can take a position

HOUSING

Impact Assessment - The housing analysis fails to evaluate the impact of the no action alternative on housing supply and availability within the Basin and the linkage of increased traffic, energy consumption and air quality problems which would result from "spillover" outside of the Tahoe Basin.

The impact analysis also failed to identify current deficiencies in sewer permit allocation systems which encourage the construction of single family residences in areas classified as High Density Residential. The loss of the integrity of higher density neighborhoods has resulted in a lower supply of resident housing at greater distances from work and activity centers. Due to current development restrictions in California and economic conditions in both states, construction of new apartment or rental type units has been virtually cut off. The viability of public transportation mechanisms and air quality control strategies is also lessened because of lower densities actually occurring within areas suitable for higher density construction.

Mitigation Measures - The mitigation measures offered in the DEIS include a provision to encourage development of moderately priced housing in nearby areas outside of the Tahoe Basin. Rather than dealing with housing problems by exporting those needs out of the Tahoe Basin, the Agency will commit to the following mitigation measures:

Housing Mitigation Measures	Responsible Entities	Notes
Create high density apartment (HDA) zone to preserve existing rental stock and program development of rental units	Local governments, TRPA, CTRPA	Proposed zone prohibits construction of single family dwellings in HDA zones
Redistribute development through transfer of development rights	Local governments, TRPA, CTRPA	Deserves further study. Could be used in conjunction with HDA designation
Encourage housing rehabilitation loans and grants	Local governments	
Improve neighborhood facilities to encourage private sector investments	Local governments	
Institute incentives for new development to include moderately-priced housing	Local governments, TRPA, CTRPA	
Institute incentives for major employers to expand housing stock when expanding operation	Local governments, TRPA, CTRPA	Limiting only to casinos does not address impact of other major employers
Coordinate regionwide land use policies	Local, regional, state and federal agencies	

TRANSPORTATION

Impact Assessment - The Agency generally concurs with the impact assessment with regard to increased demands on transportation systems.

Mitigation Measures - The mitigation measures offered in the DEIS substantially overlap recommendations of the Highway 50 Corridor Study prepared by JHK & Associates. Resolutions of support for the recommendations of the study have been adopted by all affected local jurisdictions. The Agency could therefore commit to implementation of the recommendations of that study.

RECREATION

Impact Assessment - The DEIS correctly identifies increased recreation conflicts arising due to increased use of the Basin.

Mitigation Measures - The Agency will commit to implementation of the following mitigation measures:

Recreation Mitigation Measures	Responsible Entities	Notes
Adopt ordinances to protect SEZ's and high hazard lands	(See Water Quality)	
Establish National Recreation Area (N.R.A.)	U.S. Congress	Agency can take no position until further details are available. The objectives of an N.R.A. vs. an N.S.A. may substantially differ.
Adopt Nonattainment Plan measures	(See Air Quality)	
Adopt noise standards	(See Noise)	
Acquire land for public recreational use	U.S. Forest Service, California and Nevada State Parks, local government programs	

PUBLIC FACILITIES/FISCAL CONCERNS

Impact Assessment - The DEIS generally identifies areas of impacts on public facilities with regard to capacity limitations or other needed improvements. However, to be more useful, the document should more thoroughly analyze limitations on key public services such as water supply which are directly related to the proposal. The conclusion that water supplies may limit growth due to compact limitations can probably be supported, but a more immediate problem is the allocation of available supplies amongst competing water suppliers, particularly in Douglas County.

The fiscal impact analysis in the DEIS relates more to impacts of growth than to the impacts of decisions to not allow growth. Again, the impacts of the no action alternative on fiscal matters are not evaluated. Many of the conclusions regarding fiscal impacts of new growth would relate more to a community which is considering substantial new subdivided lands rather than in-filling of existing subdivided lands.

Mitigation Measures - The Agency will commit to working towards implementation of the following mitigation measures:

Public Facilities Mitigation Measures	Responsible Entities	Notes
Consolidate water districts	Local governments, utility districts	Will assist in alleviating "spot" water shortages
Implement water conservation measures	Local governments, utility districts	
Retrofit water conservation	Private	

Public Facilities Mitigation Measures	Responsible Entities	Notes
Mandatory water conservation on new construction	Utility districts, local governments, TRPA, CTRPA	
In-Basin reuse of wastewater	DCSID, STPUD, Lahontan, NDEP	
Make maximum use of grants to reduce local costs	EPA, States, DCSID, STPUD	
Make improvements to the electrical supply system	-	
Revise building codes for energy conservation	Local governments	

The Tahoe Regional Planning Agency recognizes that this response to the DEIS serves only as an outline of actions which could be taken to mitigate the adverse impacts described. We look forward to a continuing working relationship with the Environmental Protection Agency to ensure that all of your concerns identified have been adequately satisfied. Please keep the Agency informed regarding your decision with regard to funding on this most important matter.

Sincerely,

Jim Henry

Jim Henry, Chairman
Tahoe Regional Planning Agency

JH:PAC:jf

cc: City of South Lake Tahoe
El Dorado County
Douglas County
Nevada Division of Environmental Protection
Lahontan Regional Water Quality Control Board
South Tahoe Public Utility District
Douglas County Sewer Improvement District

(HE-158) 23

United States Department of the Interior

HERITAGE CONSERVATION AND RECREATION SERVICE
PACIFIC SOUTHWEST REGION
SAN FRANCISCO, CALIFORNIA 94102

IN REPLY REFER TO:

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REGION IX
FEB 22 10 17 AM '80

W520

Interagency Archeological Services
450 Golden Gate Avenue, Box 36065
February 20, 1980

Mr. Paul DeFalco, Jr.
Regional Administrator
U.S. Environmental Protection Agency
215 Fremont Street
San Francisco, California 94105

Dear Mr. DeFalco:

We have reviewed the archeological report, "Cultural Resource Assessment of the Proposed South Lake Tahoe Public Utilities District Wastewater Treatment Facilities, Phase II" by Ann S. Peak and Associates, 1978, an appendix to the draft environmental statement for Wastewater Treatment Facilities, South Shore Lake Tahoe Basin, Douglas County, Nevada and the draft environmental statement. This letter supplements the January 23 letter to you from Ms. Patricia S. Port regarding review of this DEIS. Our comments are as follows:

General Comments on the draft environmental impact statement

In Section 3-E7, page 210-213, the basis of the information provided is not apparent. The cultural resource section is inconsistent, disorganized and incomplete, and reflects an unfamiliarity with cultural resource management.

The suggested "Mitigation Measures" for direct impacts are too limited and are insufficient to deal realistically with mitigation of adverse impacts to cultural resources. We agree with the comments on page 213 that efforts so far to identify and evaluate cultural resources are inadequate and should be done again in both El Dorado and Alpine counties. Douglas County locations should also be surveyed.

The treatment of secondary impacts on cultural reources does not follow the format used for other resources. The areas of secondary impact are not addressed beyond the inclusion of one chart which indicates that the potential for encountering and impacting cultural resources is medium to high. While we agree with this the basis for this judgement is not clear.

We are unsure how secondary impacts to cultural resources following project construction will be addressed. Is it the intention of the EPA that the counties require all new users of the system to undertake cultural resource survey and management planning prior to hookup? There is a basis for this under the California Environmental Quality Act and other approaches may be possible. A cultural resource overview of the areas of primary and secondary impact for this project would be of substantial assistance in developing your final EIS and would serve as a planning and management guide to the counties.

Archeological Appendix report comments - Peak and Associates, 1978

1) The report does not contain adequate background information.

2) Recorded sites Alp-15, 16 and 63, were not relocated nor described.

3) Survey methodology and rationale have not been described.

4) The map scale is insufficient to precisely locate the sites. Reservoir sites are unnamed on the map or in the report.

5) No archival research was undertaken in regard to the identification and evaluation of the historic sites.

6) Possibly significant sites were not mapped, nor tested for their archeological research potential.

7) It did not cover Douglas County locations.

We recommend, therefore, that further efforts be undertaken to identify and evaluate cultural resources within the proposed project area. These should include: an overview of the area of primary and secondary impacts, an adequate survey effort to identify cultural resources, a testing program to determine the research potential or historic significance of identified cultural resources, determine eligibility for National register, consult with SHPO and Advisory Council, and develop mitigation proposals based upon the above.

We would be pleased to discuss further with you or your staff the development of a realistic plan which is both responsive to cultural resource needs, yet time and cost efficient. If we may be of assistance in this manner, please do not hesitate to call us at (415) 556-7741.

Sincerely,

Garland J Gordon

Garland J. Gordon
Interagency Archeological Services
San Francisco

cc: Patricia S. Port, USDI, Pacific Southwest Region

(HE-158) 24

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REGION IX
[illegible]

MADRONE ASSOCIATES
Environmental Consultants
23-B PAMARON WAY · NOVATO, CALIFORNIA 94947
P.O. BOX 2970 · SAN RAFAEL, CALIFORNIA 94902
AREA 415 · 883-0484

February 21, 1980

MEMO TO: Janet Rosati
Water Division
U.S. Environmental Protection Agency
215 Fremont Street
San Francisco, California 94105

FROM: Diane Renshaw

RE: Comments on Page 110, South Lake Tahoe/Douglas Co. Wastewater Draft EIS

I've received the following comments from the USFWS Endangered Species office in Sacramento, and Rod Jeung at Sedway/Cooke suggested I pass them on to you. Since the report was written the USFWS has revised their official proposed listing of plants; these comments indicate how the Tahoe report should be amended to make it consistent with the current classifications. There are a few misspellings also, but no substantial changes in content.

Please let me know if you have questions.

Memo
To: Jan McKevitt, SE - attn: Wally [illegible] Wiest
From: Gail Kobetich, SESO ⑦ FEB 1 1980 JB 2/1
page 110 Re: [illegible] Comments on T/E species in South Shore Lake Tahoe DEIS.

FEB 8 1980
CHE-158 24

Rare, Threatened or Endangered Species

No listed plants are known to occur in the Lake Tahoe Groundwater Basin. As mandated by the 1978 Amendments to the Endangered Species Act of 1973, the June 16, 1976 proposal (41 FR 24524-24572) to list some 1,700 species of vascular plants in the U.S. was withdrawn on November 10, 1979 (44 FR 70796-70797). At present there are no formally [illegible] proposed U.S. plants. All plant taxa listed on the July 1, 1975 Notice of Review of threatened and endangered plants (40 FR 27824-27924) and the 1976 proposal are being temporarily treated as "candidate species" by the U.S. Fish & Wildlife Service's

②

Sacramento Endangered Species Office (SESO). A new, updated Notice is currently being compiled by SESO in conjunction with the California Native Plant Society, Northern Nevada Native Plant Society and several Federal and State agencies. When completed, this list will be incorporated into a nationwide candidate list of endangered and threatened plants and published in the Federal Register sometime during the Spring of 1980. This list will be used to prioritize species for listing in the near future.

With regards to the status of those plants included on page 110 of the Draft Environmental Impact Statement, only two — *Rorippa* *subumbellata* and

Draba asterophora var. *asterophora* are likely to be included in the new FWS Notice of candidate species. They will both be recommended for "threatened" status by this office

Carex paucifructa, *Haplopappus eximius*, *Draba stenoloba* var *ramosa* and *Lupinus montigenus* will *not* be included in this list, though these will probably remain species of concern. Incidentally, the spelling of the latter three species in the DEIS is incorrect, as is also Ms. Ann Pinzl of the Nevada State Museum.

We are in support of the botanical survey recommended on page 118 of the DEIS and would be interested in consulting informally on the results of this survey, particularly if any impacts to candidate species are likely to occur.

lower elevation pine species. Desert mountain mahogany prevails on the eastern rim because of drier weather conditions.

Above approximately 8,000 feet, soils are shallow, the growing season is short, and the vegetation is variable. The highest elevations (above 9,800 feet) are characterized by communities of scattered, herbaceous plants. These alpine communities support fleabanes, Sierra chaenactis, penstemon, and many other species.

Chaparral communities in the study area occur where fires or timber cutting have eliminated the forest overstory (Neilson, 1973). Dominant species are typically similar to the understory in nearby forest regions. Greenleaf manzanita and tobacco brush are the most abundant components of this vegetative association.

Each of these plant communities or habitat types has undergone some change as a result of human activity in the Lake Tahoe Basin. Houses, roads, and paved surfaces have replaced many communities entirely, and air pollution, soil compaction caused by foot traffic and off-road vehicles, and mechanical injury have caused damage to the remaining plants in urbanized regions. In residential areas, much overstory vegetation has been retained because of its aesthetic value, but most understory vegetation has been removed. Lawn and other ornamental plantings replace this loss in some measure, but have not coevolved with the other vegetation and wildlife and often require extra water. Fertilizer and chemicals for protection from insects may cause damage to other components of the ecosystem. Roots cut or bark scarred during construction makes trees susceptible to rot and insect attack and subject to further infestation. Felled trees or even stacked green firewood can become breeding centers for bark beetles, which can then attack and kill other trees (Hunt, 1971).

Rare, Threatened, or Endangered Species. Although no plants proposed by the U.S. Fish and Wildlife Service for inclusion on the official listing (41 FR 117, June 16, 1976) grow in the Lake Tahoe Basin, six species of interest to the California and Nevada Native Plant Society are found there. The locations of these species are shown in Figure 10.

ies

[illegible] of

Th. Pinzl

Tahoe yellow cress (Rorippa subumbellata), which grows in scattered locations around the shoreline in both states is considered by the native plant societies to be rare and endangered (Powell, 1974; Penzl, pers. comm.). Sierra sedge (Carex paucifructa), one of the rarest plants in California (Smith, 1973) and considered rare and endangered, has been collected in the Desolation Wilderness (Powell, 1974; Smith, 1973). A rare but not endangered composite, Haplopappus eximius, also grows on peaks in the Desolation Wilderness (Powell, 1974; Smith, 1973). On peaks of the Carson Range on the eastern side of the basin are populations of two small members of the mustard family: Draba stenolopa var. ramosa and D. asterophora. The Nevada Native Plant Society lists these Drabas as threatened species (Penzl, pers. comm.). Lupinus montagenus is considered by the California Native Plant Society to be rare but not endangered.

Th. Pinzl

montigenus

Unique and Sensitive Areas. These areas, which include natural areas designated by the California Natural Areas Coordinating Council (Hood, 1978), the Freel Peak-Job's Sister area plant association, and stream environments zone are ecologically sensitive areas and are considered biologically significant. The six designated natural areas include the Desolation Wilderness, owned and managed by the U.S. Forest Service; three lakeshore state parks (D.L. Bliss, Emerald Bay, and Sugar Pine Point); and two sphagnum bogs (Grass Lake and Osgood Swamp). Osgood

(HE-158) 25

EDMUND G. BROWN JR.
GOVERNOR OF
CALIFORNIA

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1416 Ninth Street
95814

(916) 445-5656

Department of Conservation
Department of Fish and Game
Department of Forestry
Department of Boating and Waterways
Department of Parks and Recreation
Department of Water Resources

Air Resources Board
California Coastal Commission
California Conservation Corps
Colorado River Board
Energy Resources Conservation and Development Commission
Regional Water Quality Control Boards
San Francisco Bay Conservation and Development Commission
Solid Waste Management Board
State Coastal Conservancy
State Lands Commission
State Reclamation Board
State Water Resources Control Board

THE RESOURCES AGENCY OF CALIFORNIA
SACRAMENTO, CALIFORNIA

1980 FEB 20

Ms. Janet Rosati
U.S. Environmental Protection Agency
215 Fremont Street
San Francisco, CA 94105

Dear Ms. Rosati:

The State of California has reviewed the draft environmental impact statement, "Proposed Wastewater Treatment Facilities, South Shore, Lake Tahoe Basin", submitted through the Office of Planning and Research in the Governor's Office.

The State's review, which fulfills the requirements of Part II of Office of Management and Budget Circular A-95 and the National Environmental Policy Act of 1969, was coordinated with the Departments of Conservation, Fish and Game, Forestry, Parks and Recreation, Water Resources, Food and Agriculture, Health, and Transportation; the Air Resources, Reclamation, Solid Waste Management, and State Water Resources Control Boards; and the State Lands Commission.

In addition to the attached comments received from the Departments of Fish and Game, Forestry, Transportation, and Water Resources; and the Air Resources and State Water Resources Control Boards, the State has the following response concerning the report.

The State of California considers Lake Tahoe as a priceless national treasure, one that local, State, and Federal governments should work together to protect for present and future residents and visitors. Given this point of view, it is difficult to understand how the Environmental Protection Agency can consider funding the project described in this report, since it clearly would allow substantial additional urbanization in the South Lake Tahoe region. The Western Federal Regional Council has indicated that some environmental thresholds have already been exceeded in the Lake Tahoe Basin and since sewer capacity has been a major constraint on growth at Lake Tahoe, it is logical to assume that the proposed project would further degrade overall environmental quality of the region. Since the report clearly indicates that the region would be unable to accommodate and absorb the anticipated growth without major degradation, it is unrealistic for EPA to state a willingness to fund a 10 MGD plant if no environmental degradation would occur. The applicant must demonstrate this, and the State does not believe that the obvious adverse impacts can be avoided.

In addition to the direct impacts of the projects, the State also agrees with the statement in the report that serious indirect effects (adverse air quality, increased erosion, etc.) are inevitable consequences of growth-inducing projects such as this. The report, however, analyzes secondary impacts poorly, and does not mention cumulative impacts at all. There is no discussion of a "no project" alternative, a serious omission. There is no specific discussion of the recommended project's configuration or capacity, its impacts, or what mitigation would be needed to offset the project's impacts.

The mitigation measures contained in the report lack any legally enforceable commitments for implementation by local and State government and have not been approved by EPA. All of the proposed mitigation measures have problems in implementation and none is guaranteed effective. Consequently, the final report should contain minimum criteria for demonstrated effectiveness of mitigation measures. Based upon past performance, the Tahoe Regional Planning Agency should not be relied upon for implementation of the mitigation measures.

The State recommends that the final report include a discussion of the impacts of funding to the existing levels of service commitments. It should also determine the thresholds for various environmental factors, infrastructure, and social services. In addition, any grants for projects such as the one described in this report should be conditioned to compensate for damages to stream environment zones or other wetlands. Before a Step 2 grant is awarded, South Tahoe Public Utilities District must develop and cause implementation of an air quality mitigation program to offset the project's direct and indirect emissions.

We appreciate having been given an opportunity to review this report. The State looks forward to working with the local and Federal governmental agencies involved to develop a realistic plan for protecting Lake Tahoe unique natural resources.

Sincerely,

James W Burns
JAMES W. BURNS
Assistant Secretary for Resources

cc: Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814
(SCH 79122005)

Attachments

State of California **The Resources Agency**

Memorandum

To : James W. Burns
Projects Coordinator
Resources Agency
13th Floor
Resources Building

Date : February 14, 1980

Subject : REVIEW OF DEIS,
WASTEWATER TREATMENT
FACILITIES
SCH #79122005

From : **California Regional Water Quality Control Board**
Lahontan Region
P.O. Box 14367
2092 Lake Tahoe Blvd.
South Lake Tahoe, California 95702
(916) 544-3481

The staff of the Lahontan Regional Water Quality Control Board has reviewed the "Draft Environmental Impact Statement (for) Proposed Wastewater Treatment Facilities, South Shore Lake Tahoe Basin (DEIS)", and we wish to make the following comments:

General Comments

1. The report fails to identify in detail any specific recommended project configuration or capacity. Revisions should be made to incorporate the specific features of the recommended project.

2. We find no detailed discussion of the "No Project" alternative and an evaluation of its environmental effects. The report should be amended to include this information.

3. We believe that an additional scenario should be added, consisting of funding to existing levels of service commitments and analyses of associated environmental impacts for such an alternative.

4. The document should specifically determine and identify thresholds for various environmental factors, infrastructure, and social services. Where thresholds are exceeded or would be exceeded, impact rating should be stated as extreme and unacceptable and the associated scenario ruled out for funding eligibility.

5. We greatly doubt that the various mitigation measures outlined in the DEIS will ever really be effective in avoiding projected adverse impacts. The record of the last 10 years of land-use control at Tahoe has been to impose mitigation measures for new development, yet the quality of Lake Tahoe and its environment has steadily continued to decline. We believe that minimum criteria for demonstrated effectiveness of mitigation measures should be specified.

6. In many instances the Tahoe Regional Planning Agency (TRPA) is identified as an agency responsible for implementation of mitigation measures. The poor record of performance by this agency suggests that the report should not invest reliance on TRPA for effective implementation.

7. In general, the effects of various growth scenarios on Alpine County are largely vague or understated. For example, we believe that the 5% spillover assumption is too low to represent what really would occur. Particularly important is the serious lack of detailed, relevant discussion and evaluation of the potential health effects of reclaiming secondary effluent in Alpine County.

8. With respect to South Tahoe PUD, the report should thoroughly evaluate the need for conventional secondary treatment (CST), advanced secondary treatment (AST), or advanced wastewater treatment (AWT) and should provide sufficient rationale for funding of treatment beyond CST in accordance with new Federal regulations regarding this issue.

9. The impacts of the recommended project should be presented in detail along with the minimally necessary mitigation measures to facilitate funding.

Specific Comments

Page 1. Further detailed explanation of the specific water quality problems at Indian Creek Reservoir (ICR) is needed. For example, the causes of eutrophic conditions at ICR should be explained in addition to the fish toxicity problem.

Page 2. It should be clarified that DCSID is proposing to expand its plant from an effective capacity of 2.3 mgd to 3.0 mgd. Though DCSID claims the plant was originally designed for 3.0 mgd, it has never been able to treat that amount of flow. Also omitted is any reference to the leakage of sewage effluent into the Tahoe Basin from the DCSID holding pond.

Pages 12 and 13. We greatly doubt the validity of the assessment that removal of the DCSID discharge from the Carson River might result in higher pollutant concentrations during the dry season. We also doubt that the quality of irrigation return waters is poorer than the typical DCSID effluent discharged to Carson River.

Page 15. In Table 4, UC Davis should be deleted as a responsible agency under water quality mitigation, since this organization exerts no regulatory power and functions no differently than a private contractor.

Page 19. The reference in the first paragraph to the "Upper River Basin" should be changed to "Upper Carson River Basin."

South Tahoe PUD violated waste discharge requirements from 1974 through 1977. After 1977, intermittent technical violations continued to occur. Additional discussion is warranted on the impact of the violations at ICR, as evidenced by toxicity and eutrophication problems and foaming in irrigation water released from the reservoir. The discussion on page 19 should also be updated to reflect the most recent actions toward South Tahoe PUD by the Regional Board.

Page 20. We believe that environmental goals for water resources and quality should include enforcement of nondegradation policies where appropriate. We propose as an additional environmental goal that land-use and development be consistent with protection policies for Lake Tahoe. Certainly, any list of environmental goals should include the objective of protection and restoration of the Lake Tahoe environment as a whole.

Page 39. The South Tahoe PUD treatment processes are inaccurately described. Ammonia is removed primarily by breakpoint chlorination; air stripping plays a minor role. The listed sequence of lime sludge handling processes should also be corrected to conform to current practice.

Pages 42-45. The discussion on pages 42 and 44 and Table 11 on page 43 should be revised to incorporate provisions of the current NPDES permit adopted by the Regional Board on December 6, 1979.

The discussion on current flows and capacity on page 44 should be revised to reflect the additional reasons why the consulting panel chose to rate the South Tahoe PUD plant at 7.0 mgd. (See Consulting Panel Report; Findings and Conclusions.)

The discussion of impacts on ICR should include effects on beneficial uses, including water contact and non-contact recreation.

On pages 44-45, the discussion regarding DCSID fails to address the problem of leakage from the holding pond. There should also be a more detailed discussion of the record of noncompliance by this discharger. Also, there is no mention of the reduced effective capacity at DSCID as the result of effluent violations, thus making the discussion under "Capacity and Current Flows" on page 45 very misleading. A comparison of export pipeline capacity to export pumping capability should also be made since export pumping capacity is limited to approximately 2.88 mgd.

Page 57. An additional new alternative for South Tahoe PUD should be inserted. This alternative should include AST followed by storage and land disposal in Alpine County.

Page 63. The discussion regarding potential public health hazards in Alpine County due to reclamation of wastewater is inadequate and should be expanded to include all relevant issues and state-of-the-art knowledge.

Page 69. It is incorrectly stated that pumps were used during the 1976-77 drought to lift water from Lake Tahoe into the Truckee River. Such was not the case.

Page 70. The visitor figures in the first paragraph are misleading when discussed together with the beneficial uses of Lake Tahoe. The expansion of peak figures between 1970 and 1977 was probably related largely to the expansion of casino gambling rather than to beneficial uses of the lake.

Page 71. Table 15 includes a printing error from our Basin Plan. The "x's" for Beneficial Uses of Minor Streams in Area Code 634.10 should be shifted two positions to the left.

Page 72. Table 16 omits narrative water quality objectives specified in the North Lahontan Basin Plan.

Page 75. A key phrase has been eliminated from the description of the California nondegradation policy. Line 7 of paragraph 3 should read: "Will not result in water quality less than that prescribed in the policy."

Pages 75-76. Although it may be popular usage, EPA should not perpetuate a technically inaccurate phrase such as "preservation of the ecology." "Ecosystem" should be used.

Page 76. The statement is made that Lake Tahoe is not now being monitored. A limited amount of monitoring is being done by the U.C. Davis Tahoe Research Group.

The discussions of groundwater and tributaries should include the former South Tahoe PUD land disposal site within the basin and its influence on surface and groundwater quality.

The last paragraph does not give sufficient emphasis to the concept of threatened violations. If it can be shown that a source will or may raise the annual average to exceed the objective, that, in itself, is a violation.

Page 77. The units for nitrate and total phosphorus in Table 18 should be micrograms per liter.

Page 79. Some of the "undeveloped" tributaries in Table 20 have been influenced to some extent by man (e.g., summer homes on Cascade Lake, road along General Creek).

Page 80. Units for nitrogen, phosphorus and iron should be micrograms per liter in Table 21.

Page 81. Fourth paragraph, under heading "Loss of Environmentally Sensitive Lands": Not only have just two types of lands in the Tahoe Basin, SEZ's and high erosion hazard lands, been particularly affected, essentially all lands in the Tahoe Basin have been affected. The land capability system was developed, not only to indicate which lands are too sensitive for any disturbance, but also to indicate the appropriate level of disturbance and coverage for all lands. Thus, development has affected environmentally sensitive land in three ways:

- construction on high hazard lands,
- construction in SEZ's, and
- construction resulting in coverage in excess of land capability.

Table 24 indicates a single value for runoff concentration from a variety of activities. In reality, the TRPA 208 program collected numerous water quality samples, and, independent of type of runoff event, simply took the mean value of all samples taken for a particular activity. In reality, a wide range of concentration values was observed. The fact that no attempt was made to relate the range of concentration to flow regimes is a serious shortcoming of TRPA's 208 effort.

Pages 81-82. The roles of grazing, logging, and offroad vehicle use in sediment production should be added to the discussion here.

Page 84. Turbidity units in Table 24 should be "JTU" (for "Jackson Turbidity Units").

Page 85. A line appears to have been omitted in footnote 1 to Table 25.

Page 86. The term "periphyton" is used here without being defined.

Pages 89-90. The pollutant loading model which the TRPA used to develop information contained in Table 26 is probably incorrect for a number of reasons. Among these reasons are:

- Pollutant loadings in the TRPA model are not related to intensity of development. The pollutant concentration for an area zoned LDR (613 mg/l suspended sediment) is the average concentration of numerous samples collected from a large number of areas zoned LDR. Some of these areas may be 20% developed, while others may have been 80% developed. Yet the application of the mean data value (613 mg/l) does not distinguish between the two. Use of the TRPA model would not show any variation in runoff quality from LDR zoned areas as buildout is approached. The State Board model used in the 208 report, on the other hand, does show an increasing deterioration of water quality as development proceeds.

- Pollutant loadings in the TRPA model are not related to land capability. The TRPA model, for example, assumes no difference in runoff water quality between a LDR development on high erosion hazard lands with large cut and fill slopes and a LDR development on low hazard land and relatively flat terrain. The State Board model does show a definite correlation between water quality deterioration and development on increasingly high hazard lands.

- Pollutant concentrations in the TRPA model are based upon the mean value of all samples collected from a particular land use zone. This value is then applied to a theoretically calculated value of runoff quantity to determine the loading rate from the particular land use zone. Such an approach is fundamentally incorrect. Concentration of pollutants in runoff varies tremendously from one runoff event to another and even within a particular event. Nonetheless, reasonably good correlations can be achieved by relating increased pollutant concentration to increased runoff amounts, at least for similar types of runoff events. As documented in the State Board report, "Demonstration of Erosion and Sediment Control Technology--Lake Tahoe Region." Thirty-six percent of the sediment discharge from the Lonely Gulch Creek watershed occurred during rainstorm events which occurred less than 3% of the time and involved less than 0.5% of the total flow in the stream. Clearly a random sampling program with the resultant average sample value applied to the total volume of water discharged from a particular land use zone is not an accurate simulation of realistic events. The State Board model used in the most recent Tahoe 208 report attempts to correct this problem by using only water quality data that have been flow-related on an annual average basis. The approach used by the TRPA model, coupled with relating natural loading rates to areas zoned General Forest (independent of actual disturbances taking place), is probably the reason why natural loading rates in the TRPA model are vastly different than those in the State Board's model.

- Although the State Board model is not perfect, it would appear to be a far more realistic representation of the physical characteristic of erosion and urban runoff than is the TRPA's model. This is somewhat ironic in that the vast majority of water quality data which were used in the State Board's model were available prior to the start of the TRPA's water quality monitoring and 208 planning effort. The major shortcoming of the State Board's model is that it does not relate water quality levels to implementation of remedial control measures. It would appear, however, that insufficient information is presently available to attempt inclusions of such relationships.

- For the above reasons, the final EIS should incorporate the model used by the State Board in its draft 208 plan. We recognize that much of the nutrient information was not available prior to the time the draft EIS was sent to the printers. This, however, should not prevent inclusion of this information in the final EIS.

Page 92. In Table 28, concentrations of all parameters except suspended solids are incorrectly expressed as mg/l. The correct units are µg/l (micrograms per liter).

Page 93. Second line from the bottom should read, "...sediment yield, 0.25 tonnes/hectare/year..."

Page 94. First paragraph. Tahoe Keys, Bijou Park, Tallac Village, and much of Meyers are not in high erosion hazard areas. Certain portions of these areas are in SEZ's.

In determining the mitigation measures for erosion and urban runoff control, the following factors are extremely critical:

- any development of high erosion hazard lands,
- any development of SEZ's,
- degree of coverage and disturbance in any developed area,
- extent of remedial or onsite control measures to reduce existing levels of pollutant loading to Lake Tahoe.

Page 96. It should be emphasized in the table that it represents annual loadings by the year 2000.

Page 98. Last line: Change to "plankton counts."

Page 99. Under mitigation measures, we do not believe that it is enough to merely restrict development in SEZ's; further development in such areas must be prohibited outright. Similarly, development on high erosion hazard lands (HEHL's) should also be prohibited as opposed to merely discouraging development on such lands.

Pages 101-102. The point system proposed is useful in directing development to the most suitable lands, but actually fails to prevent development in SEZ and HEHL areas. The point system would be useful in complementing development prohibitions in SEZ and HEHL areas.

Pages 102-103. U.C. Davis should be deleted as a responsible agency for implementation of water quality monitoring mitigation.

Pages 103-104. The TDR system described here has a great deal of merit from a water quality standpoint. However, the TDR system could be improved by incorporating an offset policy into any TDR approvals, thus enhancing Lake Tahoe water quality rather than merely maintaining it. Consideration should be given to an offset policy as a separate mitigation measure to be implemented by local and regional agencies.

The entire discussion of development impacts should be updated to reflect the State Board's 208 plan for the Tahoe Basin.

Page 117. It is noted that critical damage would occur to SEZ's under all growth scenarios. The effects on SEZ's of a "no action" scenario should also be discussed.

Page 142. The establishment of an NSA as a mitigation measure is a good suggestion; however the discussion here does not cover the subject adequately. Further information on the proposal should be supplied.

Page 196. The discussion of water supply should be updated to reflect the State Board's water rights report. The following specific comments are by Charles White, the author of that report:

Page 197. Water Supply Impact Assessment. There are a number of incorrect or inappropriate statements in the water supply impact assessment section beginning on page 197.

The California-Nevada Interstate Water Compact (not to be confused with the California-Nevada Interstate Planning Compact which forms the Tahoe Regional Planning Agency - TRPA) allocates 23,000 afa and 11,000 afa to California and Nevada, respectively, for total annual gross diversion for use within the Lake Tahoe Basin from all natural sources including groundwater and under all water rights. An additional section of the compact also provides for diversions for non-consumptive purposes provided that such uses result in no discernable reduction of water available to either state. Furthermore, the water compact also provides for increases beyond the above amounts, provided that certain additional conditions are met.

The specific allocation of the water granted each state for use within the Tahoe Basin is left to the jurisdiction of each state. The water compact does not supersede the respective water rights laws of each state, and each state may presumably allocate its share in any manner it sees fit. The language on page 198 of the EIS seems to imply that the compact contains certain assumptions pertaining to water use. This is completely false. The assumptions listed on page 198 for the California portion of the Lake Tahoe Basin are simply assumptions made by the staff of the State Water Resources Control Board in arriving at a recommended equitable allocation of the 23,000 afa under California water rights law in fulfillment of California's responsibility as required by the water compact. Although the report was released with the full awareness of the State Board, it does not represent an expression of State Board policy. The State Board will hold hearings on the subject matter and determine an appropriate policy at some later date.

The table provided at the bottom of page 197 is somewhat narrow in scope. The variation in water use under each of the scenarios appear to only be a function of the sewage flows which the EIS has calculated for each scenario. This is erroneous for two primary reasons:

1. The sewage flows under each of the future scenarios assume continuance of existing occupancy. At present, annual average occupancy rates for the Lake Tahoe Basin are less than 65%. An increase in occupancy, primarily during non-peak periods, could have a tremendous impact on total annual water demand. On the other hand, non-peak period increases in occupancy might not affect peak sewage flows to as great a degree. Fill-in of vacant units during non-peak periods could potentially increase total water demand by 20-30%, without having any resultant increase in peak sewage flows.

2. The table does not reflect a possible change in per capita water use through increased landscape irrigation practices. Such uses appear to be on the increase in the Tahoe Basin. Such increased water consumption would not be accompanied by increased sewage flows.

Obviously, it is impossible to treat such water use possibilities with any degree of precision. Water use is extremely elastic depending upon a large number of factors including climate, development trends, regulation and public awareness. The "Report on Water Use and Water Rights" recently published by the State Water Resources Control Board shows present water demand for the South Tahoe area to fluctuate from 6,936 to 8,518 acre-feet per annum. This fluctuation represents 20% of the present overall diversion (7,660 afa). Furthermore, the report projects that buildout of existing subdivided lots in the South Tahoe area could lead to a water demand ranging from 12,600 to 17,000 afa. These amounts are clearly in excess of the 12,100 afa which the report recommends for allocation to the South Tahoe area.

At a minimum, the EIS should be cognizant of these ranges in potential water use. Increased development levels within the South Tahoe area should be tied closely to increased levels of water use in the future. Development which would lead to a water demand in excess of available water or established water rights should be prohibited.

The table appearing at the top of page 198 is misleading and inappropriate. The table incorrectly portrays the water rights situation in the DCSID portion of Nevada. Prior to 1966, annual acre-foot limitations were imposed upon only a few water rights in the Nevada portion of the Lake Tahoe Basin. Depending on localized water availability, diverters in the Nevada portion of the Basin could theoretically divert over 73,000 afa. Since 1966, the Nevada State Engineer has pursued an aggressive program to place annual acre-foot limitations on all water rights in the Nevada portion of the Basin. As of September 1978, the status of water rights in the Nevada portion of the Basin was as follows:

Water rights with annual limit	10,636
Water rights without annual limit	3,306
Subtotal	13,942
Pending water rights applications	20,625
Total	34,567

Clearly, Nevada has made substantial progress in imposing annual acre-foot limitations.

The Interstate Water Compact allocates 11,000 afa to the Nevada portion of the Tahoe Basin. As stated above, existing rights total 13,942 afa. Clearly, the State of Nevada will have to limit water use even further than specified in existing water rights if it is to adhere to the water compact allocation. In view of the water compact allocations and existing water rights, the approval of any pending water rights applications in Nevada seems an extremely remote possibility.

Each water district within the DCSID has a water right or series of water rights which, in combination with all other approved rights in the Nevada portion of the Basin, add up to 13,942 afa. The possibility of each water district within the DCSID service area acquiring more water than is presently specified in their individual rights is unlikely.

In this light, the proper approach in tabulating water rights within the DCSID service area should be as follows:

> The table should list all the water districts within the DCSID service area, of which there are approximately 20. After each water district, the amount of total water available for use within that district according to existing water rights should be listed. After the legally available supply, the table should list the 1978 and the projected water use "range" for each scenario for each water district. Asterisks could be used to indicate when the projected range under any scenario exceeds or threatens to exceed the water rights of any particular district.

In this manner, the EIS would more correctly portray the actual water rights situation in the Nevada portion of the Basin. It is not inconceivable that under any one scenario, some water districts would exceed their individual rights while others would not. This could lead to a redistribution of water rights, individual water conservation programs, or development controls within various individual water districts.

An insufficiency of water rights is already causing potential problems for the Incline Village area. Presently, the Incline Village G.I.D. does not have sufficient water rights to serve projected full buildout of existing subdivided lots. At the same time, the Incline Village G.I.D. is being asked to provide water service to new condominium and commercial developments which would further decrease its eventual ability to provide service to existing vacant lots. We suspect that the Incline Village situation is not an isolated one.

Page 200. There appear to be several discrepancies in the unit flow assumptions for casino facilities used to derive the flows projected in the table. Compare these assumptions to the unit water use factors that appear in the footnotes of Table 3.05 in the DCSID Draft Facility Plan (January 1977).

The figure in the table for 1978 campsites in STPUD appears to be in error. Should it be 1,102?

Page 208. We suggest that user costs may also be mitigated by selection of the most cost-effective project that satisfies applicable standards and constraints.

Page 209. Mitigation for effluent transport is proposed here, but we find any discussion of the problem missing from the text of the DEIS. We also question whether in-basin reuse is the most appropriate mitigation for an effluent transport problem, considering the availability of another alternative less threatening to Lake Tahoe, namely, expansion of the export line.

The DEIS lacks any reference to the problem of continued illicit use of individual waste disposal systems within and adjacent to the service areas of the respective districts. The document should identify the extent of the problem and propose mitigation. Appropriate mitigation would be requiring that the respective districts survey their individual service areas and determine their needs. Each district should be required to provide sewer service to each discharger who continues to utilize an individual waste disposal system.

Pages 219-220. Part of the discussion of rare and endangered plant species appears to have been omitted between these two pages.

Page 236. The discussion of water quality problems in the Carson River fails to mention the degradation associated with the DCSID discharge, as documented by EPA as part of its lawsuit against this discharger. We doubt the validity of the implication in the last paragraph on page 236 that septic tanks in geologically unsuitable areas are a cause of siltation and large sediment loads.

In the last paragraph on this page, disturbance of vegetation and septic tanks should not be referred to as "natural" sources of pollution.

Page 237. Table 38 omits water quality objectives for the California portion of Carson River tributaries and should be amended accordingly. It should also be made clear that the upper number of each pair represents number of violations of the objective.

Page 238. The last paragraph implies that bottom sediments from ICR are the source of eutrophication and toxicity problems. This is not so. The South Tahoe PUD discharge is, by far, the greatest source of nutrients and ammonia. This assertion is substantiated by the Middlebrooks and Associates report.

The discussion on page 238 regarding potential effects of secondary effluent reclamation is totally inadequate. See general comment number 7.

The analysis of water quality problems on pages 236-238 omits two other important aspects:

1. Overflows from ICR.
2. Increased sediment contribution due to land development induced in Alpine County as a result of spillover.

In the analysis of impacts on the Upper Carson River area, there should be discussion on the benefits that are derived from reclamation and reuse of wastewater, such as economic gains and increased freshwater supply.

Page 244. Diamond Valley Road, Foothill Road, and Jack's Valley Road should be added to the list of scenic roadways in the Upper Carson River Basin.

Page 245. The discussion of visual impacts should include aesthetic enjoyment of water (part of the non-contact water recreation beneficial use).

Page 265. The second paragraph states that Indian Creek Reservoir is open to swimming. Water-contact recreation is not a recognized beneficial use of the reservoir in our 1975 Basin Plan (e.g., Table 37), and the State Department of Health Services has recommended that warning signs be posted.

Page 275. The impact assessment that begins on page 275 fails to assess in detail the health impacts of reclamation of secondary effluent. This section should also determine what level of treatment is necessary to assure complete public health protection.

Pages 279-80. The Lahontan Regional Board should also be listed as a responsible agency under mitigation measure number 1.

Additional measures for mitigation of adverse effects under wastewater treatment on pages 279-280 should be listed. This includes the measures outlined in the report prepared by Bill B. Dendy and Associates for Alpine County in addition to predischarge monitoring and continuous monitoring and reporting of water quality parameters in areas where effluent is or will be reused.

More detail should be provided under the description of mitigation measure number 3 on page 280. Examples of areas where additional assurances could be provided include designing for 100% redundancy, continuous infiltration/inflow corrections to prevent overloads, and contingencies for treatment facilities replacement or expansion to prevent deterioration of effluent quality.

Volume 2, Page 332. The discussion of STPUD contracts should be updated to reflect the installation of sewers at Fallen Leaf Lake.

Pages 343-344. This discussion should be updated to reflect the latest Regional Board actions.

Please contact Judith E. Unsicker or David C. Antonucci at this office if you wish to discuss these comments.

Very truly yours,

Roy C. Hampson

ROY C. HAMPSON
EXECUTIVE OFFICER

cc: Environmental Protection Agency/Janet Rosatti

State of California **The Resources Agency**

Memorandum

To : Huey D. Johnson
Secretary for Resources
1416 Ninth Street
Sacramento, CA 95814

Attention: Jim Burns
Projects Coordinator

Date: January 18, 1980

From : **Department of Fish and Game**

Subject: SCH 79122005 Proposed Wastewater Treatment Facilities - South Shore Lake Tahoe Basin

The Department of Fish and Game has reviewed the subject Draft Environmental Impact Statement (DEIS). The DEIS addresses secondary impacts resulting from upgrading and expanding sewage treatment facilities in the South Shore Lake Tahoe Basin. Five growth scenarios are examined and mitigation measures are proposed.

All five scenarios identify critical damage to stream environment zones (SEZs). Measures to mitigate this damage include: Implementation of a SEZ ordinance to restrict development in the SEZs, adoption of an evaluative point system to minimize development in SEZs, purchasing subdivided lots which are zoned for development in the SEZs, or redistribution of development by the technique of transfer of development rights (TDR). All of the proposed mitigation measures have problems in implementation and none are guaranteed to be completely effective.

The Department concurs with the position stated in the DEIS that it is the responsibility of the utilities seeking funding for sewage treatment upgrading and expansion to obtain commitments from various local, state and federal agencies with authority to implement the mitigation measures and to demonstrate to EPA that there will be no deterioration of environmental quality. Further, the Department recommends that any grants funded for these projects be conditioned to provide for compensation for damages that might occur to stream environment zones and other wetlands.

E C Fullerton
Director

CKF

State of California

Memorandum

To : Huey D. Johnson, Secretary
Resources Agency
1416 9th Street

Attention: Jim Burns, Projects Coordinator
Resources Agency

Date : January 23, 1980

Subject : Draft Environmental Impact Statement (DEIS) for Proposed Wastewater Treatment Facilities South Shor
Lake Tahoe Basin

From : **Air Resources Board**

Despite inadequacies in the draft EIS regarding the discussion of alternatives (i.e., including the no project alternatives) and mitigation measures (lack of implementation support), we are in agreement with the U.S. Environmental Protection Agency's major concern that serious indirect effects, such as adverse air quality, are the inevitable consequences of projects which facilitate increased development of the region. These effects are likely to be further aggravated by expanding the wastewater treatment capacity while mitigation is much less likely. Among the alternative facilities plans (assessed in a 1978 DEIR) for improving the existing treatment facilities, the preferred alternative of the South Tahoe Public Utilities District (STPUD) is to abandon its advanced sewage treatment process for a secondary one; to expand its treatment capacity from 7.0 million gallons per day (mgd) to 10.0 mgd to meet the needs of anticipated growth; and to dispose of its treated sewage by land application in Alpine County rather than into Indian Creek Reservoir.

The Lake Tahoe Basin has been designated as a nonattainment area for carbon monoxide (CO) because the 8-hour national CO standard is exceeded. A revision to the California's State Implementation Plan (SIP) for attaining and maintaining the national ambient air quality standards has been submitted to EPA for the Lake Tahoe Basin. The revision has quantified emission growth associated with STPUD treatment capacity expansion. A significant portion of the CO winter emissions are directly or indirectly attributable to expansion. This revision also includes control measures to reduce ambient levels of CO. However, the revision does not show attainment of the 8-hour CO standard by the 1982 Federal Clean Air Act deadline. The Act provides that a subsequent plan, to be submitted in 1982, is required to show attainment no later than 1987.

The DEIS relies on mitigation measures in the draft Lake Tahoe Basin NAP which have yet to be approved by EPA and which lack legally enforceable commitments for implementation by local government and the state (e.g., I & M program). Therefore, STPUD and the DEIS cannot rely at this time on the measures included in the draft Lake Tahoe Basin NAP to provide sufficient offsets to existing and anticipated future carbon monoxide concentrations. Until a plan which contains sufficient strategies to attain and maintain standards along with necessary commitments for implementation are approved, STPUD will need to develop and cause implementation of an air quality mitigation program which offsets the direct and indirect emissions that would be caused by the project. We believe this program should be developed prior to award of the Step 2 grant.

W. C. Lockett
William C. Lockett, Chief
Regional Programs Division

State of California **State Lands Commission**

Memorandum

To : Huey D. Johnson
Secretary for Resources
Resources Agency
1416 Ninth Street, Room 1311
Sacramento, CA 95814

Attention: James Burns

Date : January 25, 1980

File No.:

From : **EXECUTIVE OFFICE**
1807 13th Street, Sacramento 95814

Subject: Comments to Draft Environmental Impact Statement, Proposed Wastewater Treatment Facilities, South Shore, Lake Tahoe Basin SCH #79122005

The staff of the State Lands Commission has reviewed the subject EIS. We are concerned that while the proposed project does not directly affect us, secondary impacts could result in additional development of the shorezone. These issues are either not or poorly analyzed throughout the EIS. We have addressed these shortcomings in our subsequent comments.

The assumptions upon which the impact analysis is based are not entirely supportable. For example, the EIS assumes existing casino space will not grow, yet, Harrah's is presently expanding floor space. Similarly, the assumption that growth is not constrained by environmental standards is erroneous. CTRPA land use ordinances contradict this assumption. We believe that the EIS should reflect conditions as they exist.

The EIS fails to adequately assess secondary effects. It tends to equate impacts one for one; however, secondary impacts tend to be compounding. For example, the EIS recognizes an increase in the number of people in the basin will increase the demand for transportation facilities. Yet, it does not evaluate the impacts of this increased demand. The document only suggests that the need for additional transportation can be mitigated. We suggest the EIS include analyses of secondary impacts and propose adequate mitigation for such impacts.

Entirely absent in the EIS is discussion of cumulative impacts. The analysis only suggests they might exist.

The discussion of alternatives is entirely inadequate. Alternatives to the project include more than an expansion of the facilities. Where is the "no project" alternative? Similarly, regulatory actions by other agencies do not, of themselves, suffice as adequate mitigation measures.

Our final comment pertains to the method of analysis of the impacts themselves, i.e. low, moderate, high, etc. Input to such a system tends to be rather arbitrary and provides little analysis with regard to the importance of the impacts. Further, the portrayal of any of the impacts as low or moderate needs substantial justification. We suggest there is substantial information which indicates the lake is already beyond its carrying capacity in many areas, particularly water quality and that any additional impact would compound an already highly affected environment. To quote Marc Petty, Chairman of the Tahoe Coordinating Group, Western Federal Regional Council:

> Today, the Lake Tahoe Basin can best be characterized as a system strained to the breaking point. The "urban environment" is in dire need of expansion in [illegible] number of service areas -- all of which, if satisfied, will create a new round of expansion, a new build-up of incremental needs, and more environmental degradation. As measured by Federal and state standards, little or no capacity to-absorb more degradation exists in Tahoe's air while ozone and particulate concentrations now periodically exceed Federal and state standards. Present ozone level, if sustained for long time periods, may cause damage to Tahoe's coniferous trees. In the Lake, the nondegradation requirement for waters of exceptional ecological or recreational significance has been violated, and tributary stream standards are probably exceeded. The exponential rate of increase in phytoplankton productivity in Lake Tahoe and the proliferation of periphyton in the nearshore areas of the Lake are of particular concern.

> While some types of activities (for example, gaming compared with outdoor recreation) clearly cause more environmental degradation than others, it is the growth process at Tahoe that is of paramount concern. Historically, growth has proceeded in cycles with the roles of the private sector, the Federal Government, and state and local government closely linked. Each has stimulated and accommodated the activities that, in the aggregate, cause environmental deterioration to accumulate.
>
> The Federal Government is a major actor in this growth process, but its performance is no different at Tahoe than nationwide. Each agency acts in accordance with its mission and with the National Environmental Policy Act. The environmental impacts of each individual action taken over the past 8 years were evaluated and mitigated on an individual case basis to the extent possible. Yet, Tahoe's environmental quality continues to deteriorate even as more money is spent on mitigation. The solution to one problem tended to create a whole new round of unanticipated problems.
>
> Western Federal Regional Council
> Interagency Task Force
> Lake Tahoe Environmental Assessment
> Opening Letter by Marc Petty
> December 1979

We believe that these comments more accurately reflect the current state of the Lake basin and should be seriously considered in any discussion of the merits of any expansion of sewage facilities in the Lake Tahoe Basin. Thank you for the opportunity to review the EIS.

Randall L Moory
RANDALL L. MOORY
Planning and Environmental
Coordination

RLM:js
cc: Janet Rosati
U.S. Environmental Protection Agency

CKF

STATE OF CALIFORNIA—BUSINESS AND TRANSPORTATION AGENCY
EDMUND G. BROWN JR., Governor

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION PLANNING
1120 N STREET
P.O. BOX 1499
SACRAMENTO, CALIFORNIA 95807
(916) 445-7111

January 15, 1980

U. S. Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, California 94105

Attention: Hearing Officer, HE-158

Gentlemen:

Draft Environmental Impact Statement (EIS)
Proposed Wastewater Treatment Facilities
South Shore - Lake Tahoe Basin

The following comments relate to the draft EIS circulated December 4, 1979. The following concerns should be addressed in the final environmental document.

Page 4, Table 1

Scenario Five would effectively double the sewage capacity at South Lake Tahoe. Transportation and air quality issues are already serious, and proposals for mitigation do not allow for this level of growth. The problem is recognized throughout your analysis, but the seriousness appears to be overlooked in the statements on page 285. The impact of growth is shown on page 8 by the following statement: "Traffic generated by residential development can be expected to increase in almost direct proportion to the population increase." We cannot imagine mitigation of double the traffic demands anywhere in the Tahoe Basin. This matter should be addressed in the final EIS.

Page 14, Paragraph One

There appears to be a given assumption that major STPUD plant expansion will occur, requiring a revised disposal process in Alpine County. The statement "EPA can only recommend that land application of the treated sewage be undertaken" seems premature. After reviewing the impacts of Alpine County disposal, page 68, other alternatives would appear to be in order. Have alternatives of retaining existing use of Indian Valley along with limited growth been considered?

Page 14, Paragraph Three

The issue of Federal funding for a 10 mgd plant is not easily resolved through the STPUD obtaining commitments for mitigation measures. What is meant by a commitment? How does the STPUD obtain a commitment for transportation legislation and funding? A growth scenario for a 10 mgd plant cannot be mitigated through current transportation proposals. How about the impacts of the transportation development needed for meeting the 10 mgd growth scenario? Can these be mitigated through commitments by the district? This should be addressed.

Page 15, Table 4

Energy consumption must be included as an impacted natural resource. Development of tourist-oriented facilities in this relatively remote area encourages increased travel. The impacts of this increase must be considered in the decision process.

Page 24, Table 5

Casino development has major impacts on South Shore transportation and should be clearly presented in the growth scenarios. The "high" assumption includes 110,000 square feet expansion of casino floor area. While this assumption may include the planned Harveys expansion (50,000 square feet), the Palace (33,000 square feet) and the Oliver (33,500 square feet), it does not present major internal expansions and anticipated casino trip generation resulting from construction of the four major parking structures. The currently approved structures will increase available parking from the existing 7,100 spaces to a total of nearly 14,000 spaces. Anticipated impacts of this major expansion must be included for proper evaluation.

Page 156, Paragraph Two

The discussion of development impacts on air quality and traffic leaves doubt as to the critical nature of the impact.

We suggest revised wording to indicate that further development will exacerbate existing problems rather than "is likely to exacerbate existing problems".

Page 168, Last Paragraph

The discussion of west shore congestion must be revised. Major congestion now occurs during summer months on Route 89 immediately south of Tahoe City and on Route 28 through Tahoe City, also on Route 28 at the northshore stateline. Winter congestion occurs on Route 89 throughout the entire Tahoe City area, including Route 89 to Squaw Valley.

Page 171, Table 34

A description of practical capacity including figures representing absolute capacity would be invaluable for reader understanding of existing major congestion problems and for what will occur under the various growth scenarios.

Page 172, Traffic Volume Chart

The use of average weekday traffic volumes is misleading. A better comparison of existing traffic to capacity conditions can be made by using summer day figures. Otherwise, the low traffic months lower the overall average and imply less concern with the problem. The 44,000 ADT at Stateline appears to be in error. Traffic on Van Sickle and on the lower loop should also be included.

Page 263, Paragraph Three

A discussion of Route 19 and the impacts of widening must have more detailed analysis. Route 50 capacity along the eastern shoreline cannot necessarily handle the diversion, and Route 19 cannot be widened without major environmental disturbance.

Page 285, Paragraph Four

The statement indicating EPA's willingness to fund a 10 mgd plant if no resulting environmental degradation occurs, is unrealistic, based on the preceding 284 pages of major impact assessment. The environmental document clearly defines the inability of the region to accommodate and absorb the anticipated growth of this magnitude without major degradation of the area. This is a subject area that requires the utmost of consideration and should be addressed in the final document.

Sincerely,

Ann Barkley

ANN BARKLEY
Chief

State of California **The Resources Agency**

Memorandum

To : Huey D. Johnson
Secretary for Resources
The Resources Agency
1416 Ninth Street, Room 1311
Sacramento, CA 95814

Attention: James W. Burns

From : **Department of Water Resources**

Date : FEB -8 1980

File No.:

Subject: Draft Environmental Impact Statement - Proposed Waste Water Treatment Facilities - South Shore Lake Tahoe Basin - SCH 79122005

We have reviewed the subject draft environmental impact statement (DEIS) which was transmitted by the State Clearinghouse Notice of Intent dated December 15, 1979, and have the following comments and recommendations:

The DEIS contains alternative project proposals analyzed in the framework of 5 alternative growth scenarios which list treatment plant capacities varying from 7.3 to 10.0 million gallons per day. The treatment plant is presently designated as a tertiary treatment facility and the recommended alternative would provide secondary treatment. Various State control agencies, including the State Water Resources Control Board, are discussing in detail the potential growth-inducing aspects of the proposed project. Therefore, we will not duplicate those discussions.

Several of the project alternatives, including Alternative 3b recommended by South Tahoe Public Utility District, would provide for disposal of treated effluent other than in Indian Creek Reservoir. Davis-Grunsky Act Grant Contract No. D-GGR27 between the State of California and South Tahoe Public Utility District (STPUD) would require continued operation and maintenance of the reservoir for recreation purposes. In the descriptions of Alternatives 3a and 3b, it is recognized that the water level would need to be maintained but no mention is made of future concern with water quality in Indian Creek Reservoir. In negotiating an amendment to the Davis-Grunsky contract, which amendment would be needed if effluent is no longer discharged to Indian Creek Reservoir, we would expect STPUD to present a plan to assure adequate quality of water in the reservoir. Our concern is that the reservoir may contain a buildup of nutrients which may require many years to deplete.

Ronald B. Robie
Director
8-485-6582

STATE OF CALIFORNIA—RESOURCES AGENCY
Edmund G. Brown Jr., Governor

DEPARTMENT
DIVISION OF FORESTRY
2840 Mt. Danaher Road
Camino, CA 95709
(916) 644-2345

January 23, 1980

Re: 0900 ENVIRONMENTAL PROTECTION
Wastewater Treatment Facil.
S. Shore, Lake Tahoe Basin
SCH #79122005

Environmental Protection Agency
215 Fremont Street
San Francisco, CA 94105

Gentlemen:

I have reviewed the Draft Environmental Impact Statement for the Proposed Wastewater Treatment Facilities, South Shore, Lake Tahoe Basin, and have the following comments.

As a Forester employed by the California Department of Forestry which has legal authority under the State Forest Practice Act for regulation of timber harvesting on non-federal timberland, I find the minimal reference to forested land management a major omission. An expansion of the wastewater treatment facilities would probably create additional pressure on those lands zoned by TRPA and CTPRA as General Forest for urban development. In my viewpoint, this would have several effects which should be spoken to in the EIS.

Urban development in these General Forest lands would remove those lands from the availability for timberland management, which includes cellulose production, esthetics, wildlife and high quality water. A considerable portion of the presently undeveloped privately-owned land is within this General Forest zone classification. Commercial timber harvesting is presently allowed under relatively stringent permit requirements. Several Agencies have concurrent authority over anyone harvesting operation (CDF, TRPA, CTRPA and LRWCB) and develop requirements for an operation with a primary goal of reducing erosion as nearly as possible to natural geologic erosion rates. Generally, the long term erosion rates following timber harvest are less than those resulting from urban development.

Considering the above discussion, this aspect of activities in the Basin which will be increased or decreased, depending on wastewater disposal capacities, should be spoken to as a part of the final Environmental Impact Statement.

Sincerely,

JAMES P. SIMMONS, State Forest Ranger

By: Robert J. Hubbell, Area Forester

RJH:os

(HE-158) 26

ROUND HILL
GENERAL IMPROVEMENT DISTRICT
P. O. BOX 976
ZEPHYR COVE, NEVADA 89448
702-588-2571

February 22, 1980

United States Environmental Protection Agency Region IX
Attention: Janet Rosati
215 Fremont Street
San Francisco, California 94105

Re: Draft Environmental Impact Statement
Proposed Wastewater Treatment Facilities
South Shore Lake Tahoe Basin
Douglas County Sewer Improvement District #1

Dear Ms. Rosati,

Please be advised that the Board of Trustees of the Round Hill General Improvement District would like to go on record that they fully support and concur with the position presented by Jere Williams, Engineer for DCSID #1, and Bill Huss, Legal Counsel for DCSID #1 at the public hearing held on January 24, 1980.

This hearing was held at the Lake Tahoe Unified School District Board Room.

Their position is stated verbatim in the report that was taken by the court reporter, Thomas R. Wilson of the firm Symthe and Wilson. The portion applicable to their presentation is on pages 219 through 249 inclusive.

Please be advised we are submitting this as an interested party that has DCSID #1 treat all of our sewage effluent, therefore anything that affects them also affects us.

Sincerely,

Carol D. Mast

Carol D. Mast
District Manager

CDM:pap

(HE-158) 27

REC'D BY E.P.A
REGION IX
COMM. CENTER

FEB 26 9 38 AM '80

David Moser
2423 Blake #106
Berkeley, Ca.
94704

February 24, 1980

Ms. Janet Rosati
U.S. Environmental Protection Agency
215 Fremont Street
San Francisco, Ca. 94105

Dear Ms. Rosati:

The following are comments concerning the Draft Environmental Impact Statement for the proposed expansion of wastewater treatment facilities at the south shore of Lake Tahoe.

1) In the letter entitled "To The Reader" attatched to the DEIS, it is stated that in accordance with the Environmental Protection Agency (EPA) Water Quality Management Regulations, "no degradation shall be allowed in high quality waters which constitute an outstanding national resource..." The letter also states that Lake Tahoe constitutes an Outstanding National Resource by declaration of the Western Federal Regional Council. Yet, EPA recommends that the alternatives recommended by the South Tahoe Public Utility District (STPUD) and the Douglas County Sewer Improvement District #1 (DCSID) be followed. "...the adverse secondary impacts of expanding to this capacity (STPUD's) can be seen by reviewing the impacts described for either scenario 2 or 5."(p. 281) In essence, therefore, EPA is advocating growth scenarios 2 or 5. If we look at the DEIS projections of basin water quality deterioration under these two scenarios, we find the following forecasts:

a) To what extent will development encroach upon high erosion hazard lands? Scenario 2 - (Impact rating) Medium, Scenario 5 - Extreme. (p.93)

Erosion rate predictions by SWRCB estimate that "...60 percent of all sediment production in the basin is a direct result of urbanization."(p. 81) and all vacant land would be developed under scenarios 2 and 5 for STPUD and under scenario 5 for DCSID. Therefore, the actualization of either scenario, especially #5, will greatly increase nutrient flow to the lake, thereby increasing the presently escalating primary productivity and eutrophication, as well as increase suspended and settleable solids.

b) To what extent will development encroach upon SEZs(Stream Environment Zones)? Scenario 2 - High, scenario 5 - Extreme. (p. 94)

SEZs convey surface runoff, provide valuable fish and wildlife habitat, and have an effective natural cleansing capability. Fieldwork has shown that, "when at least 0.01 inch of rain falls, average percentage reductions of greater than 90 percent were observed for total phosphorous, turbidity, total residue and total non-filterable residue." (p. 85)

Under scenarios 2 and 5, complete development of all lots (4,129 lots, more than 1,346 acres) in SEZs would occur in STPUD, while the same situation would occur in DCSID under scenario 5. The SEZ's inherent cleansing capability, as well as its other attributes, would be lost and water quality of the lake would deteriorate.

c) How will urbanization of the basin affect pollutant loadings and lake concentrations? Scenario 2 - High, scenario 5 - Extreme. (p. 96)

These are the two highest impact ratings of the five scenarios. The results of such urbanization would greatly increase phosphorous and nitrate loadings, thus stimulating algal growth and thereby reduce the aesthetic and biological(decreased DO, increased BOD etc.) qualities of the lake. The resulting increase in suspended solids would reduce clarity and disturb fish and wildlife habitat.

From this discussion, it appears to me that EPA has recommended procedures that would result in the most environmentally damaging results in terms of water quality. EPA might respond to this by pointing out their mitigation measures for the forecasted impacts, but I find these faulty as well.

Mitigation measure #1 calls for restrictive development of SEZs, yet scenarios 2 and 5 call for 100 percent development of SEZs in STPUD, as does scenario 5 for DCSID. It appears to me, then, that this mitigation is not applicable to your recommendation, though it could be highly effective for the other scenarios.

Mitigation measure #2 calls for the use of best management practicies (BMP) aimed at controlling erosion at the source. This I believe could be effective at low levels of development, but could not possiblybe expected to control erosion enough to prevent any degradation of Lake Tahoe waters with the complete development of high erosion hazard lands that would result from scenarios 2 and 5.

Mitigation measure #3 calls for evaluative point systems to minimize development in low capability lands such as high erosion hazard lands and SEZs. This too would work for low growth scenarios, but development of these lands can not be minimized when the development will occur on 100% of the land, as is proposed for scenarios 2 and 5. Again, this measure is not applicable to these scenarios.

Mitigation measure #4 calls for implementation of water quality monitoring for basin waters. I agree that this would be "extremely useful toward providing a consistent, long-term investigation of lake quality," but it would do nothing to mitigate the proposed growth induced impacts of scenarios 2 and 5. It is a needed item, but it is not a mitigation of impact.

Mitigation measure #5 calls for purchasing of subdivided lots or acres zoned for development that are in high hazard lands and SEZs. This would work well for low growth scenarios, but will this be possible under the complete buildout under scenario 5? I don't think so, but the question should be further studied and commitments for money detailed in the final EIS.

Mitigation measure #6 calls for compensation of land owners who experience losses because of development restrictions. This does nothing to prevent water quality deterioration and is not applicable to a full growth scenario such as 2 or 5 for STPUD or scenario 5 for DCSID.

Mitigation measure #7 is a good concept and should be explored further in the final EIS.

From the material presented in this DEIS, therefore, it is my opinion that EPA has chosen an alternative that will result in the greatest damage to the water quality of Lake Tahoe. Yet, it is required by its own regulations to prevent any degradation of the lake's water quality. Furthermore, no appropriate or applicable mitigation measures have been suggested. It is imperative that this issue be more thoroughly analyzed and that workable and effective mitigation measures be developed and included in the final EIS.

2) Many of the mitigation measures in this DEIS are described in part by defining their "cost". Yet, on rough count, of the 40 measures that attempt to define the measure's cost, only 9 of those measures give a monetary figure. The remaining measures have their cost described as: "Administrative"(p.100), "Would depend on the number of sampling points..." (p. 103), "Cannot be estimated without inspection" (p. 166), "typically high" (p.209), etc.

This gives the reader, and most importantly the decision maker, no monetary considerations with which to analyze these measures. Telling the reader that the costs are "administrative" does him no good and might as well not be included.

It is my suggestion that an attempt to estimate costs be tried, and that if a cost determination is not possible for whatever reason(s), this should be stated and the reason why in the final EIS.

3) Although a draft EIR was prepared for STPUD in 1978 and a draft facility plan was prepared for DCSID in 1978, I feel that the four page coverage of direct affects (primary impacts) associated with the proposed project is vastly inadequate. I recognize that

the intentions of this DEIS was to analyze the project's secondary impacts, but such a comprehensive report regarding such an environmentally sensitive area should give an adequate account of all of the associated impacts.

To be more specific, in the construction of STPUD's chosen alternative (3b), 120 acres of open space and deer wintering ground will require excavation and clearing, a visual disturbance will be created and siltation will occur in the West Fork of the Carson River. We are not told in the DEIS, though, how this will impact the deer or other wildlife, the water quality of the river and the resulting affect on aquatic habitats, the visual aesthetics offered from neighboring highway 89, or what mitigation measures, if any, will be taken to offset such impacts. If the summary of the direct effects used in this DEIS is an accurate representation of the previous documents, there is no basis, in my opinion, for EPA to recommend the alternatives chosen by STPUD and DCSID. I am suggesting a much more complete coverage of the direct effects in the final EIS, although they must be kept as brief as possible.

4) It is stated on page 113 that the southern bald eagle (Haliaeetus leucocephalus) is listed as an endangered species and that is a regular visitor to the Lake Tahoe basin. In compliance with the Endangered Species Act of 1973, I suggest mitigation measures to specifically protect the bald eagle habitat be adopted in the final EIS. One such measure would involve protection of the aquatic habitat of the Kokanee salmon, a source of food for the eagle during the salmon's spawning season. This means preserving the water and streambed quality of the Truckee Marsh and Taylor Creek areas.

5) Wildlife is an important part of the Lake Tahoe basin and as much should be done to protect this resource as possible. The discussion of wildlife in the DEIS in reference to the basin focused mainly on endangered species (as is required), yet little attention was given to the effects of development on the resident deer populations, nor to local birds and mammals. I would suggest that a more comprehensive inventory of wildlife in the basin be conducted and the impacts upon it analyzed and mitigated in the final EIS.

6) One affect of any level of increased growth in the Lake Tahoe area will be the economic affect on the local communities. Although I am not a resident of the Tahoe area, I think that projections of economic effects under the different growth scenarios should be included in the final EIS for this project for the benefit of the people who will be affected by this project most - the local residents.

This concludes my comments regarding this draft environmental impact statement. My comments are meant to be constructive, in hopes of enabling the best decision to be made, and I hope they are taken as such.

As of approximately June 15 of this year, my new place of residence will be:

2316 Ward St. #5
Berkeley, Ca. 94705

I would appreciate it if you would send me a copy of the final EIS at that address.

Thank you for allowing me to express my views on this project.

Sincerely Yours,

David Moser
Student - U.C. Berkeley

(HE-158) 28

DOUGLAS COUNTY NEVADA

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February 22, 1980

Ms. Janet Rosati
U.S. Environmental Protection Agency, Region IX
215 Fremont Street
San Francisco, California 94105

Dear Ms. Rosati:

The Douglas County Board of Commissioners has reviewed the Planning Department's comments regarding the Draft Environmental Impact Statement. We are in full agreement with the staff positions detailed in the letter.

It is our hope that Douglas County and the Environmental Protection Agency can continue to cooperate in matters pertaining to Lake Tahoe. Through cooperation, the natural beauty of the Lake can be preserved and the rights of private property owners can be protected.

Sincerely,

Ken Kjer, Chairman
Douglas County Board of
Commissioners

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(HE-158) 28

PLANNING
DEPARTMENT

ANDREW BURNHAM
Director

(702) 782-5176

February 19, 1980

Ms Janet Rosati
U.S. Environmental Protection Agency, Region IX
215 Fremont Street
San Francisco, California 94105

Dear Ms Rosati:

The Douglas County Planning Department has reviewed the Draft Environmental impact Statement (DEIS) for the proposed wastewater treatment facilities on the South Shore of Lake Tahoe. Our comments are divided into three sections; the first is devoted to general comments concerning the report, the second consists of specific techncial corrections, and the final section deals with the mitigation measures.

GENERAL COMMENTS

The National Environmental Policy Act requires that a no action alternative be addressed. As regards the DEIS, this no action alternative has three variations:

1. No funding for either the Douglas County Sewer Improvement District (DCSID) or the South Tahoe Public Utility District (STPUD).
2. Funding provided to DCSID, but no funds allocated to STPUD.
3. No funds allocated to DCSID, but funding provided to STPUD.

The DEIS does not adequately analyze any of these three variations.

The growth scenarios provide useful information, but do not properly address the indirect impacts of the preferred alternatives of the two sewer districts. Only Scenario #2 allows for the sewer capacities cited in each of the two preferred alternatives. The growth scenarios which constitute the heart of this DEIS deal with the sewer plans as a mitigation measure to a wide range of possible futures. The correct approach would be to examine the direct impacts caused by the preferred alternatives.

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The migration of people into the Carson Valley who commute to work in either Carson City or Reno is current fact, and it is believed this trend will continue into the future. The DEIS purposefully ignores addressing this demographic reality, and because of this action the impact analysis on the Carson Valley is clearly inadequate.

The portion of the DEIS devoted to the Carson Valley is a result of the NEPA requirement that impacts on regions outside the study area must also be addressed. The quality of the analysis of the Carson Valley is much lower than that of the Tahoe Basin. In many portions of the DEIS the thrust of the discussion seems to be directed towards diverting population to the Carson Valley. The impacts upon the environment and economy of the Carson Valley may be considerable. In the Tahoe Basin the DEIS analysis takes the worst-case assumptions, yet in the Carson Valley the DEIS seems to use the data that underestimates impacts. It appears that the EPA is establishing a case to direct growth to the Carson Valley. The shifting of a problem from one region to another never generates a final solution. This has been made eminently clear in the federal and state mandates to export sewage out of the Tahoe Basin. Any efforts to direct growth from the Tahoe Basin to the Carson Valley without a proper and sincere analysis of the impact on the Valley would not be consistent with the National Environmental Policy Act.

The environmental and social impacts that are engendered by a large number of people commuting from the Carson Valley to Lake Tahoe is not analyzed. For example, no mention is made of the traffic impact on Kingsbury Grade (State Route 19) within the Tahoe Basin except perhaps to divert traffic to U.S. 50.

The question of how to mitigate the environmental impacts is very hard to get a handle on. There appears to be a catch-22 involved; what mitigation measures are undertaken will determine the growth scenario, however, each growth scenario determines what mitigation measures are to be undertaken.

The DEIS addressed the collective impacts of the two sewer plants. This joint study is clearly the proper way to address this question. However the funding decision will be made individually. For that reason, the mitigation measures that DCSID and STPUD are individually responsible for should have been addressed. The situation as it exists now seems destined to generate a collective approval or denial of both proposals. The mitigation measures to be undertaken if funding for only one district is granted must be addressed.

There is no indication as to how well impacts must be mitigated before EPA funding is granted. Should the level of environmental quality be that which exists now, some prior pristine level, the level that would occur if no action were taken, or some combination of these levels?

The following statement is found on pp. 285-86 of the DEIS:

> *"It is STPUD's responsibility, then, to obtain commitments from various local, state and federal agencies with authority to implement the mitigation measures and*

157

> *to demonstrate to EPA that there will be deterioration of environmental quality. Accordingly, the next step between now and preparation of the final EIS is for STPUD to seek commitments from implementing agencies. The result of this step will determine whether the project can be funded for 10 mgd as proposed by the district.*
>
> *Similarly, DCSID, although not requesting an expansion of treatment plant capacity, will have to obtain commitments to implement mitigation measures. Indirect effects of primary concern include disruption of high erosion hazard lands, SEZs, and biological resources."*

To seek commitments prior to the final EIS appears to be an incorrect procedure. This is still the Draft Environmental Impact Statement and as such is subject to technical, interpretive and substantive revision. These changes may affect the analysis of environmental impacts and the necessary mitigation measures. Commitments that are obtained based upon the draft document may prove meaningless upon publication of the final EIS. To avoid unnecessary wastes of time and effort, it would seem appropriate to obtain commitments subsequent to the adoption of the Final Environmental Impact Statement.

SPECIFIC COMMENTS

This section is devoted to making technical and interpretive corrections of the text. Items are referred to on a page by page basis. (Note: Items referred to in the Summary are found elsewhere in the text and should be corrected at those locations as well.)

> *p.1 "For DCSID, effluent quality is unable to meet the existing effluent limitations."*

DCSID had no violations of existing effluent standards during the calendar year 1979.

> *p.2 "An environmental impact statement analyzes the effects of preferred alternatives."*

p.26	Assumptions Made For The Purpose of Defining Growth Scenarios	Reasons for Assumption
WASTEWATER TREATMENT CAPACITIES	2. Scenarios reflect probable futures requiring a range of capacities for STPUD and DCSID.	Participants agreed that capacity alternatives should not be inputs to scenario development; rather that scenarios, as reflections of probable futures, will be the basis of estimating required capacities.

We concur with the statement made on p.2 especially as regards the purpose of the EIS. We feel that the statements made on p.26 regarding assumptions for the scenarios are not consistent with those made on p.2. The assumptions made on p.26 serve to subvert the purpose of the EIS. Since this EIS is predicated upon this assumption, doubt is cast upon the entire document.

p.11 "Housing. Demand for housing is one of the most significant impacts created by spillover population. As in the Lake Tahoe Basin, housing price may become a determinant of who can live in the Carson Valley. With a strong second-home market and land use policies oriented to large-lot, low-density development, the Carson Valley may not be affordable for the spillover population (mostly young, low-income employees)."

The consequences of this possibility must be thoroughly analyzed within the EIS.

p.12 "The Nevada State Engineer has named the Carson Valley groundwater basin a "designated basin." This designation allows him to exercise greater authority over the appropriation of groundwater supplies. Individual wells on parcels one acre or smaller have been prohibited; all other applications are reviewed for their potential impact on groundwater supplies and many are denied."

This statement is not entirely accurate. The State Engineer has the right of review and approval of water supply for subdivisions. He will not approve a subdivision which is served by individual wells and where the parcel size are less than five acres. He does not have purview over parcel maps and in fact, lots one acre or smaller are created in Douglas County by means of parcel maps which are served by individual wells.

> *p.23 "Carson Valley housing prices have also been rising. Prices are still below levels for somewhat comparable units in the basin or in the Carson City and Reno areas.*

Housing prices are as high in the Carson Valley as they are in Carson City and Reno for comparable units.

p.25	*Assumptions Made For The Purpose of Defining Growth Scenarios*	*Comments Regarding Assumptions*
ENVIRONMENTAL STANDARDS	*Growth is not directly constrained by environmental standards. Concern for the environment is reflected in other assumptions, especially in policies regarding land use and casino development.*	*It is recognized that environmental standards may affect or constrain growth; the effect of mitigation measures on growth can be addressed.*

These statements appear to be contradictory.

p.26	*Assumptions Made For The Purpose of Defining Growth Scenarios*
PUBLIC LAND ACQUISITION	*2. No other large scale public acquisition programs are assumed.*

This assumption is faulty in light of present actions. The Bliss site has recently been acquired and Congress has appropriated $12.5 million to purchase the Jenning's Casino site.

pp. 24-26 "Table 5"

No assumptions are presented concerning the Carson Valley.

p.48 "Other wastewater systems"

The Gardnerville Ranchos system described has been discontinued and all units that were on that system have now been connected to the Minden-Gardnerville Sanitation District plant. No mention is made of the Indian Hills General Improvement District Sewer plant which is designed to serve 1,000 units in the north end of Carson Valley.

p.60 "Although the Upper Carson River Basin encompasses parts of two counties in two states, the area is historically, economically, and socially a unit. The rate of urban development in the basin has been slower than the rate in the Lake Tahoe Basin".

Douglas County Planning Staff estimates show that there has been a population increase of 328% in the Carson Valley between 1970 and 1978 which compares with a 275% increase in the Douglas County portion of the Lake Tahoe Basin over the same period of time.

p.93 "Based on the SWRCB study (n.d.) for class 7 lands, a 1 percent disturbance would cause a sediment yield of 0.035 times/hectare/year; a 10 percent disturbance, 0.2 tonnes; and a 100 percent disturbance, 22 tonnes for a low capability area of 2, a 1 percent disturbance would cause a sediment, 25 tonnes/hectare/year; a 10 percent disturbance, 2.1 tonnes; and a 100 percent disturbances, 21 tonnes/year.

The 25 tonnes/hectare/year figure does not appear to be correct in light of the other figures cited.

pp.70-104 "Water Quality - Lake Tahoe Basin".

Road salt should be mentioned as a pollutant.

p.108 "Description

Because the Lake Tahoe Basin and the Carson Valley are active geological zones and are subject to periodic earthquakes, the Uniform Building Code classifies the area as zone 3 (greatest potential

> *for seismic activity). In the Lake Tahoe Basin, areas around fault zones are already intensively developed. Scenarios 2, 3, and 5 anticipate further residential development around Montgomery Estates and in the neighborhoods to the north, where Figure 9 shows a concealed fault. In the Carson Valley, lands near major fault zones are publicly owned or are zoned for low-density use, but high spillover population under Scenarios 4 and 5 may stimulate intense development in the Jacks Valley area, where a significant fault runs north through the valley along the base of the Carson Range near Genoa. This fault has an estimated potential of 7.0 on the Richter scale".*

The discussion of seismic hazards in both the Lake Tahoe Basin and the Carson Valley is limited to faults. There is little discussion of problems associated with various soil types found in seismic areas (unconsolidated alluvium for example). The fault that runs along the eastern base of the Carson Range has a potential of 8.0-8.5 on the Richter scale as correctly stated on p.214.

p.156 "*Critical Implications*

> *Land uses in the south area have already caused significant environmental and economic problems. Conflicts between land use and water quality, air quality and traffic conditions have been documented, as have economic difficulties in providing needed services for existing land uses. Without extensive mitigation, further development is likely to exacerbate existing problems.*
>
> MITIGATION MEASURES
>
> *Mitigation measures for impacts resulting from land use changes are discussed under appropriate factors. Refer to specific sections".*

A brief summary should be provided here to support statements of this nature.

p.165 "*Description. Although the scenarios identify spillover as employee households that will have difficulty securing affordable housing in the Lake Tahoe Basin, no specific measures have been set up*

> *to insure that these households would in fact find housing outside the basin....*
>
> *The effectiveness of this measure could be affected by spillover households from Carson City and Reno in search of housing in Carson Valley. These households would increase competition for available units and could affect the political feasibility of expanding the housing stock in Carson Valley. Unlike the spillover from the Lake Tahoe Basin, which results from economic activity that provides a tax base to the entire county, spillover from these other areas may not be seen as a need to be met by county policy".*

Both of these thoughts should be considerably expanded. There are really no basic assumptions concerning the Carson Valley, yet all the growth scenarios are dependent upon spillover population being directed towards the Carson Valley.

p.168 *"There are airports at South Lake Tahoe (Tahoe Valley Airport), Truckee (Tahoe-Truckee Airport, which serves only general aviation), Reno (Reno International Airport), and Carson City. Commercial airlines provide limited but expanding service to the Tahoe Valley Airport. An "airporter" bus service runs between the Reno airport, Carson City, and the south shore casinos".*

The Douglas County Airport in the Carson Valley which serves general aviation aircraft should be mentioned in this paragraph.

p.172		*1978*
	"Traffic volume at Stateline (on U.S. 50 and Loop Road)"	*44,000*

Numbers provided to our department by the Nevada Department of Transportation indicate that this figure is closer to 31,000. This change should affect all traffic volumes listed in your growth scenarios.

p.173 *"To reduce traffic congestion, it will be necessary to reduce the volume of traffic. The volume could be reduced if a larger percentage of the travel were made by transit. However, the free choice of transit without restrictions on automobile use is unlikely to*

> *cause more than a small percentage of the automobile users to make the shift, even though traffic is congested. Furthermore, even if the shift were large enough to reduce traffic volume initially, additional drivers would eventually be attracted by the improved traffic conditions, and the volume would increase to its former level, despite the increased use of transit. Therefore, in addition to expanding public transit, some form of restriction on auto use would be needed to significantly reduce traffic volume and maintain the reduction".*

To support this and other statements that assume that improved traffic flow increases the total amount of traffic, further study must be done. An analysis must be done delineating how much of the Tahoe Basin traffic is local and how much traffic is tourist generated. Improved traffic movement will have no effect on the amount of tourist traffic, but it may have an impact on the amount of local traffic.

pp.168-76 "Transportation - Lake Tahoe Basin".

No mention has been made of the following positive actions taken to mitigate traffic impacts:

1. Pedestrian underpasses in the Stateline area.
2. Individual casinos and other commercial activities are operating shuttle buses between their operations and motels in South Lake Tahoe.
3. The JHK Transportation Study which Douglas County supports.

p.184 "Garbage and solid waste from the transfer station are transported 97 miles to a 112-acre sanitary landfill east of Gardnerville in Douglas County, Nevada".

The 97 mile figure is for a round trip.

p.185 "The existing and planned facilities in the basin part of Douglas County School District could accommodate 100 to 200 additional students".

Discussions with the Douglas County School District indicate that this number is closer to 500.

p.188 *"The number of truck trips to the Gardnerville landfill is already of concern to neighbors and CTRPA".*

The neighbors in the Carson Valley are also concerned about the truck trips.

p.188 *"Under the 20-year time frame for the alternative growth scenarios, it is unlikely that the Gardnerville landfill would reach capacity".*

Under best management practices, the Gardnerville landfill is now nearing capacity, and for that reason Douglas County is now negotiating with the Bureau of Land Management for additional land to expand the facility.

p.193 *"Whether growth takes place in California or Nevada is important in determining fiscal impacts. Under Scenarios 1, 3, and 5 the shares of south shore growth are equally distributed between the states. The smallest share of growth allocated to Nevada occurs under Scenario 2. Under Scenario 4, a greater share of south shore growth takes place in Nevada, which would result in a relatively greater ability to generate per-unit sales tax and property tax revenues there and, more importantly, because of the availability of gaming revenues, would result in a better match between tax revenues and service demands. As with most economic base activities, revenues from gaming have lesser service costs directly associated with them. The proportionately greater service costs associated with the population can best be matched with revenues if located within jurisdictions where basic revenue sources can be used. Further, the availability and use of gaming revenues becomes even more important with the passage of measures limiting revenues from property tax sources. With current tax laws, at maximum rates, comparable properties generate only about half (55 percent) as much revenue in California. For new development, service districts in California benefit less, since increases in assessed value are shared by all county tax jurisdictions. Also, in California, Proposition 13 limits the extent to which future appreciation of property can be taxed. In Nevada, passage of Question 6 would make procedures similar in both states.*

Similar reasoning applies to the spillover of employee households into the Carson Valley portions of Douglas

> *County to the extent that gaming revenues are available to cover service costs in the valley. Although it is unclear whether it would be more efficient to serve the spillover population in south shore or in Carson Valley, it is reasonable to conclude that it is better to serve it in Carson Valley than at some other non-south shore location that does not have the tax base of gaming revenues".*

This statement and its conclusion on p.194 "directs proportionately more growth to Nevada than California" is a naive and simplistic analysis of the tax structure within Douglas County and the State of Nevada. Revenues from gaming have high service costs associated with them. This industry is a 24-hours a day operation oriented towards serving the public that requires high expenditures by the County. Recent legislation in Nevada limits local jurisdictions annual spending increases on non-capital items to the percentage increase in population and two-thirds of the cost-of-living increase. This legislation guarantees that Douglas County will always be at least one year behind in providing services to new residents. The legislation also means that even if Douglas County can raise more revenue through gaming, it cannot necessarily spend it.

Directing proportionately more growth to Nevada also means that proportinately more environmental impacts are directed towards Nevada. This will lead to further environmental degradation in the Nevada portion of the Tahoe Basin or more probably the Carson Valley.

> *p.195 "In Nevada, pursuant to the Solid Waste Disposal Act of 1971 (NRS 444.440-620), each municipality is required to prepare a solid waste management plan. In largely unincorporated areas, such as Douglas County, the county is responsible for developing and implementing the plan. The plans for these two jurisdictions are primarily operational and are based on state laws. They are currently being reviewed by the Division of Environmental Protection".*

Douglas County has done no solid waste plan pursuant to this legislation.

> *p.243 "Although Minden currently has no CO problems, it was considered possible that the effects of growth in the region could create some. Accordingly, a dual scale analysis of CO was performed using the methodology reported in the Lake Tahoe air quality section. Traffic data and projections were provided by the*

> *Nevada Department of Highways (1979) and were adjusted to reflect the five alternative growth scenarios (Conradt, pers. comm.).*
>
> *Description*
>
> *The projections of CO in year-2000 indicate that the air quality standards will be neither approached nor violated in the Minden area. No negative impacts are anticipated elsewhere in the basin.*
>
> MITIGATION MEASURES
>
> *As there are no adverse effects on air quality, no discussion of mitigation measures is necessary".*

The Carson Valley is a closed basin subject to inversions. There is no meterological data within the Valley that could serve as a basis of an air quality model. As will be discussed later on in this letter, the figures provided by the Nevada Department of Transportation are not accurately reported in this DEIS. Accurate traffic estimates may indicate violations of the CO standard in the future especially in combination with spillover from Carson City and Reno. It is our opinion that the best that can be said about future air quality problems is that the impact is not known.

> *p.244 "Ratings assume that the high visual quality of the Upper Carson River Basin is due in large part to the natural character of the setting and that this visual quality would be diminished by significant new development. Changes would include more structures for residential use, an expanded roadway system, and reduced air quality due to increased traffic".*

On p.243 of the DEIS it is stated that there will be no adverse effects on air quality.

> *p.245 "For Douglas County, new households are assumed to be constructed first in areas zoned for medium-density, single-family dwelling units at an average of six dwelling units per acre (R-1, R-2, R-3, and E-1 zones are designated by the Douglas County General Plan).*

There are no R-1, R-2, R-3, and E-1 zones on the Douglas County General

Plan. These designations are found in the Douglas County Zoning Ordinance.

> p.250 *"Of the developed lands, most is in residential use at low (1.5 dwelling units per acre) to medium (over 2 dwelling units per acre) densities".*

Approximately 60% of the dwelling units within the Carson Valley are located in areas where the density is 1 dwelling unit/acre or less.

> p.255 *"The subdivision ordinance discourages any land division that is inconsistent with either the Douglas County Master Plan or Zoning Ordinance. (Zoning takes precedence if there is any discrepancy (Douglas County Code, Sec.16.08.030-(B)(5).)"*

The requirement that zoning takes precedence is mandated by Nevada Revised Statutes 278.349 (3) (e).

> p.255 *"Three major developments have been proposed in Carson Valley. As of the writing of this section, all have been turned down by the county planning commission but will be appealed to the board of commissioners. Westwood Village would involve commercial uses and 460 units, with about 1,500 people on 460 acres next to Douglas High School. Newman Construction would construct 375 to 450 units on 141 acres on the former H.H. Godecke Ranch off Buckeye Road in Minden. The Fremont "new town" west of U.S. 395 near the Carson City line would add 4,000 dwelling units, 10,000 people, and commercial and public facilities. On the other hand, proposal for 462 units in two subdivisions southeast of Gardnerville was approved by the Douglas County commission in April 1979.*
>
> *Existing subdivisions contain 7,112 vacant lots. The largest number are in Gardnerville Ranchos (2,210 vacant lots), the Johnson Lane area (1,800) and Indian Hills (1,500) (Douglas County Fire Department, 1978)."*

Westwood Village has been approved but with only 310 dwelling units. The

Newman Construction and Femont projects have been denied. Two major subdivisions that have been approved and not mentioned in the DEIS are Buckbrush (646 units) and Toler Heights (473 units). There are presently 2252 units on approved tentative maps in the Carson Valley (a tentative map is an approved subdivision plat which has not been recorded).

There are 3,085 existing vacant lots. There are 143 vacant lots in the Johnson Lane area and 222 in Indian Hills.

> p.256 "*Increases described above include only spillover growth from the Lake Tahoe Basin. Levels of residential growth have been assigned to the two counties in the study area as follows:*
>
> - *95 percent to Douglas County; six dwelling units per acre*
> - *5 percent to Alpine County; one dwelling unit per acre*"

To accommodate large amounts of growth at a density of 6 dwelling units per acre would require major reversals of past and present development patterns in the Carson Valley.

> p.257 "*The effect in Douglas County of projected levels of growth for the study area would be to increase residential land use and to decrease the amount of land now in agricultural production or undeveloped. Residential units would be constructed first in traffic zones 53, 55, 59, and 60 (all concentrated around the Minden-Gardnerville area) and on 460 acres zoned R-1, R-2, and R-3. Another 597 acres of medium-density housing would be constructed in traffic zones 59, 60, 65, 66, and 67 on E-1 zoned lands. These latter traffic zones are located in agricultural areas and areas of biological resources. Development in these areas would have a greater impact on the physical and cultural environment than those near Minden-Gardnerville (see "Visual Resources" for the Upper Carson River Basin)*".

It is unclear as to whether the DEIS means there are currently 460 acres of land zoned R-1, R-2, and R-3 in Minden-Gardnerville or whether an additional 460 acres of this type zoned land is needed. If it is meant that there are 460 acres currently zoned this way, then that figure is high.

There is no mention of the development potential of traffic zone 54 which

Contains the Gardnerville Ranchos. There are approximately 700 acres of R-1, R-2, and R-3 land in this area. Of this approximately 90% are recorded and contain 1867 lots.

There is no mention of the large amount of E-1, R-1, R-2, and R-3 density development in traffic zone 64 which encompasses the Indian Hill area.

There are no existing or planned E-1 developments within traffic zones 65, 66, and 67. Traffic zone 66 straddles the large fault located at the base of the Carson Range. The large majority of traffic zones 65 and 67 lie within the 100 year flood plain of the Carson River. It would not be environmentally sound to develop these lands at the densities suggested.

> p.258 *"Last year 800 housing permits were issued, and this year 1,000 are expected to be issued (Smith, pers. comm.)".*

Which year constitute last year and this year? The following table may clarify the issue of the number of residential building permits issued within the Carson Valley:

Year	Single Family Units	Multi-Family Units	Total
1977	391	62	453
1978	600	70	670
1979	381	71	452

> p. 262 *"1978-Douglas County estimated annual average 24-hour traffic volume, Nevada Highway 88 and U.S. 395 north of Minden - 3,100".*

This 3,100 figure is for a point on Highway 88 south of its intersection with U.S. 395. The actual number as provided by the Nevada Department of Transportation for the point the DEIS describes is 8,470. This is a gross error which should effect a great change in the growth scenario projections and any mitigation measures associated with them.

> p.265 *"Alpine County provides the only county owned recreational facility within the study area, Turtle Rock Park, on Highway 89 three miles north of Markleeville".*

Douglas County owns and operates Lampe Park in Gardnerville and the new Rodeo Grounds located south and east of Gardnerville. Lampe Park has 5 ball fields, 4 tennis courts, picnic tables, a concession stand, and restroom facilities.

pp.266-72 "Public Services - The Carson Valley"

Douglas County is still using the jail facilities that were constructed in 1915. This facility is overcrowded and clearly inadequate. Douglas County faces an impending court order to close the jail. The Courthouse which houses many county offices was also originally constructed in 1915 and has been expanded since then. However, there is no longer any room for expansion and the offices are now severely overcrowded resulting in inefficiencies of operation.

In order to alleviate these problems Douglas County is planning to build public safety buildings at a total cost of 7.25 million dollars. Of this amount 6.0 million dollars will come from a bond issue (Approved by the voters on February 19, 1980) and 1.2 million will come from the county building fund.

p.269 *"In the Carson Valley portion of Douglas County, fiscal resources are likely to be available to meet service demands. A substantial revenue base from gaming activities is available to the county, and as population growth and increased gaming activity occurs, this revenue base will increase".*

Fiscal resources are not currently able to meet service demands within the Carson Valley. There is no reason to believe that the county will be able to overcome this dilemma in the future especially in light of recent state legislation and the threat of Question 6 (Nevada Proposition 13)

p.274 *"To increase the capacity of its system, Southwest Gas is constructing a loop line that will parallel an existing line along U.S. 395. In addition, the company is seeking approval to construct a liquefied natural gas (LNG) storage facility east of Carson City".*

Southwest Gas has abandoned plans to construct its LNG storage facility in Dayton. They are planning to construct a new facility in Lovelock from which they will run a pipeline to the Carson Valley and Lake Tahoe.

p.275 *"Although the unit water demand per acre is lower for urban areas than for agricultural areas (water needed for one acre of irrigated land could supply four single-family dwellings with 1,000 gallons per day) any additional demand would deplete the supply. As a result, Carson Valley could continue to accommodate urban growth only if agricultural activities decrease simultaneously".*

Estimates prepared by the Douglas County Planning Staff indicate that 2.5 acre-feet/year is necessary to irrigate one acre in the Carson Valley (Based upon 1974 Census of Agriculture). This amount of water is enough to supply approximately 2.2 single family dwellings with 1000 gallons per day. However, single-family dwellings do not occur absent of commercial and industrial developments. In the Carson Valley, for every 3 gallons of residential use there is a commensurate use of 4 additional gallons of water for commercial and industrial operations. In summary, water derived from irrigating one acre of land can support 1 single-family dwelling and the necessary commercial and industrial support facilities.

> p.278 *"The critical implications of switching to land application are reduced streamflow in the East Fork and runoff from irrigated lands. By eliminating the present discharge at Muller Lane, DCSID will have reduced the annual average flow of the East Fork by 3 mgd which accounts for a large portion of the dry season flow. Consequently, the problems associated with diminished flow such as higher pollutant concentrations may occur more frequently. Furthermore, surface runoff from irrigated lands may be of a poorer quality than the effluent currently discharged to the river".*

In 1978, DCSID was processing 2.3 mgd not 3.0 mgd; they are requesting to expand to 3.0 mgd. There was no outfall from the DCSID plant prior to 1968. Water users on the Carson River were able to get along for 100 years prior to the DCSID plant construction, and it is likely they will be able to manage in the future if the effluent discharge to the river is stopped.

> p.281 *"In the Upper Carson River Basin, population "spilling out" of the Lake Tahoe Basin accounts for a relatively small proportion of total migration into the area. However, this amount of growth will cause overcrowding at public schools, change the rural setting to a more urban one, and place greater demands on already crowded health care facilities".*

If the spillover population from Lake Tahoe only constitutes a small portion of the total migration, then the preparers of the DEIS have made a conscious decision to ignore the environmental and social impacts of the large portion of the total migration. In essence, the DEIS has not addressed the impact on the Carson Valley in light of actual conditions.

Scenario 4 shows a 164% increase in population attributable to spillover from Lake Tahoe. If this is only a small proportion of the total migration, then is it safe to assume that the total population increase in the Carson Valley may be 800% which would represent approximately 100,000 people?

MITIGATION MEASURES

The following are the comments regarding each mitigation measure proposed. They are not commitments or implied commitments. Commitment to any mitigation measure is properly done upon adoption of the EIS.

Water Quality Mitigation Measures		Comments
1. Implement stream environment zones ordinance.	-	This could be done in Douglas County. It will require adoption of a SEZ ordinance similar to TRPA.
2. Implement BMP's to control erosion.	-	This measure requires Adoption of Best Management Practices. Nevada is promulgating non-point source pollution controls.
3. Adopt evaluative point system for building permits.	-	It appears that this measure is adding another layer of procedural requirements for a lot owner to go through. It requires that previous approvals be granted additional approval.
4. Implement water quality monitoring program.	-	Not an identified responsible agency.
5. Purchase lots in environmentally sensitive areas.	-	Douglas County supports this method, but cost maybe prohibitive to a successful program.
6. Compensate landowners who experience losses because of development restrictions.	-	Douglas County supports this method, but cost maybe prohibitive to a successful program.
7. Redistribute development by transfer development rights.	-	Douglas County is contemplating TDR's in the Carson Valley for the preservation of Agriculture. This could be applied in the Tahoe Basin as well.

	Geology Scismic Mitigation Measures	Comments
1.	Enforce building codes.	Required
2.	Land Use Controls to prevent development on fault zones.	Douglas County requires a geologists report on subdivisions in areas of known faulting with recommendations as to siting of structures.

	Biological Mitigation Measures	Comments
1.	Inventory and monitor	Not an identified responsible Agency.
2.	Protect Osprey nests	Applicable when identified
3.	Surveys of rare and endangered plants	Not an identified responsible Agency
4.	Require construction and maintenance projects to include protection measures	Not an identified responsible Agency
5.	SEZ Ordinance	See water quality
6.	BMP	See water quality

	Noise Mitigation Measure	Comments
1.	Implement noise control ordinance	Douglas County does not currently have a noise ordinance
2.	Revise zoning ordinance to prevent incompatible land uses	Douglas County will revise the zoning ordinance during 1980
3.	Establish special permit procedures to implement noise reduction measures	Can be accomplished through #1 above. Can be controlled through the Building Codes also.
4.	Construct noise barriers along major highways	Barriers may have negative visual impacts. There are no funds in the State of Nevada for this measure.

	Air Quality Mitigation Measures		Comments
1.	Implement non-attainment plan	-	Douglas County supports the JHK Transportation Study. Douglas County could adopt NAP - requires substantial county commitment to many measures

	Visual Resources Mitigation		Comments
1.	Implement measures protecting water and air quality	-	See water quality
2.	Adopt TDR Program	-	See water quality
3.	Adopt design plan with implementing ordinances for design review	-	Douglas County currently reviews all building permits except single family residences for architectural and site design through the Board of Development Review
4.	Purchase lots in SEZ's etc.	-	See water quality
5.	Adopt NAP	-	See water quality
6.	Establish National Scenic Area	-	Further information is needed for evaluation

	Housing Mitigation Measures		Comments
1.	Compensate landowners who experience losses because of lower growth	-	See water quality
2.	Redistribute development	-	See water quality
3.	Encourage moderate priced housing outside the basin	-	There are constraints to growth in the Carson Valley but, moderate priced housing is needed.
4.	Encourage rehab loans and grants, code enforcement and presale inspections	-	Will require addition of personnel in building department
5.	Improve neighborhood facilities services	-	An identified ongoing process
6.	Increase allowable densities or redistribute densities through TDR	-	Needs further evaluation

7. Institute incentives for new development to include moderate priced housing	- Doesn't appear to be politically viable for Douglas County
8. Institute incentives for casinos to expand housing stock when expanding gaming activity	- TRPA identified as Responsible Agency - Douglas County should also be identified as responsible agency - Major expansion is not anticipated nor desired therefore this measure may not be needed
9. Coordinate regionwide land use policies	- Douglas County participates in TRPA, TBAG, and Transportion regionalism

Transportation Mitigation Measures	Comments
1. Add buses and establish basinwide transit agency	- Douglas County supports the JHK Study
2. Establish LRT Service	- Douglas County supports the JHK Study
3. Establish LRT Service and basin user fee	- Douglas County supports the JHK Study
4. Establish LRT, basin check points and user fee	- Douglas County supports the JHK Study

Recreation Mitigation Measures	Comments
1. Adopt SEZ ordinance	- See previous comments
2. Establish National Scenic Area	- See previous comments
3. Adopt NAP	- See previous comments
4. Adopt noise standards	- See previous comments
5. Acquire Land for Public Recreational use	- If substantial land is acquired-costs for local government will be prohibitive

Public Facilities and Services	Comments
1. Expand Hospital	- Not an identified responsible Agency

2.	Construct Primary Intermediate Care Clinic	Greater Nevada Health Systems Agency
3.	Expand county health services programs	Will be a cost to the County
4.	Ensure that new development locates to take maximum advantages of existing service capacities	Requires revision of the general plan
5.	Adopt system of regional tax base sharing	This is currently done within the county.
6.	Coordinate regional land use planning and capital facilities and contribute funds for such improvements	Can be done through TBAG, TRPA, etc.
7.	Require developers to provide infrastructure, etc.	Douglas County generally requires these improvements
8.	Consolidate service districts	Currently being accomplished
9.	Institute double sessions etc for schools	Not necessary in Douglas County
10.	Use volunteer personnel for law enforcement and fire protection	Currently being done
11.	Expand transfer station in City of South Lake Tahoe	Not applicable
12.	Encourage recycling and resource recovery	This measure could be done.
13.	Initiate public education and volunteer program	This measure could be done.
14.	Construct transfer station in Nevada	Needs study to see if its cost effective and necessary

	Water Supply Mitigation Measures	Comments
1.	Institute water conservation programs	May be necessary in the future
2.	Install retrofit devices	May be necessary in the future

3.	Enforce mandatory water conservation efforts	May be necessary in the future
4.	Make use of grants	May be necessary in the future
5.	Allow in-basin reuse of treated effluent	Douglas County could support this measure in light of current effluent transported to the Carson Valley by many agencies.

	Energy Mitigation Measures	Comments
6.	Make needed improvements to the electrical supply system	Not applicable
7.	Install natural gas pipeline	No applicable
8.	Construct a storage/peaking facility for LNG	A facility is planned in Lovelock
9.	Retrofit existing structures with insulation	Offered through utilities
10.	Revise building codes to require additional insulation	1979 UBC will be adopted
11.	Encourage energy audits	Offered by State of Nevada
12.	Encourage energy efficient transportation systems	See previous comments

	Cultural, Archaeological and Historic Mitigation Measures	Comments
1.	Require site analysis as part of development	Done for major projects
2.	Nominate cultural resources for inclusion in the National Register	Can be done if applicable
3.	Require dedication of cultural resources by developer as a part of subdivision process	Can be done if applicable
4.	Purchase land or obtain restrictive easements	Could be done if monies were available.

CARSON VALLEY

Biological Mitigation Measures		Comments
1. Establish and implement controls on non-point source water pollution	-	Nevada is promulgating regulations for non-point sources
2. Protect plants and their critical habitats	-	Not an identified responsible Agency
3. Protect eagle and hawk nesting populations	-	Douglas County General Plan recognizes the importance of this measure
4. Consider regional pattern of development in evaluating impacts of individual projects to protect habitat	-	Douglas County General Plan recognizes the importance of this measure
5. Protect deer herds and habitat	-	Douglas County General Plan recognizes the importance of this measure
6. Protect *Seyeria Apachean* and its habitat	-	Douglas County General Plan recognizes the importance of this measure

Water Mitigation Measures		Comments
1. Implement land use controls for flooding	-	Douglas County has a flood plain ordinance

Visual Mitigation Measures		Comments
1. Adopt area wide design plan	-	Board of Development Review reviews architectural and site design for all but single family residences
2. Update zoning ordinance	-	Contemplated during 1980
3. Adopt ordinance to prevent development on steep slopes	-	Contemplated during 1980
4. Develop transportation plan	-	Contemplated during 1980
5. Designate scenic roadways	-	Contemplated during 1980

	Transportation Mitigation Measures		Comments
1.	Encourage car and van pooling to south shore casinos	-	Could be done through private business in the Tahoe Basin
2.	Divert traffic from Highway 19 to Highway 50	-	Not energy or environmentally efficient
3.	Improve roads to accommodate traffic	-	On going process
4.	Establish local bus system to south shore casinos	-	This should be justified through an analysis of the number of riders that might utilize a system. The State of Nevada has done some studies regarding this measure.

	Public Services and Facilities Mitigation Measures		Comments
1.	Expand Carson-Tahoe Hospital	-	Currently being done
2.	Construct primary/intermediate care clinic	-	Planned
3.	Initiate and/or expand county health programs	-	Contemplated
4.	Encourage volunteer services	-	Currently done
5.	Direct growth to areas with excess school capacity	-	General Plan addresses this measure
6.	Institute double session etc.	-	Not necessary
7.	Coordinate land use planning and capital facilities planning and budgeting	-	Capital Improvements Program and General Plan will be adopted shortly.
8.	Adopt a system of regional tax-base sharing	-	It is done within the county now.
9.	Use volunteer personnel for law enforcement and fire protection	-	Currently done
10.	Require contributions from developers for capital facilities such as schools and fire stations	-	Currently done

11. Expand present solid waste facilities - Contemplated

12. Public education and volunteer programs to reduce solid waste - Could be done

Water Supply Mitigation Measures — Comments

1. Import reclaimed water for irrigation - Currently studying this measure

2. Monitor Groundwater for irrigated runoff to ensure that land application of secondary effluent is not detrimental to surface and groundwater - An ordinance adopted by Douglas County requires permits for discharge

3. Maintain reliable treatment to ensure public health protection - An ordinance adopted by Douglas County requires permits for discharge

Thank you for the opportunity to comment on the draft EIS. We hope the comments will serve to clarify many areas within the document. If you have any questions please let us know.

Sincerely,

ANDREW R. BURNHAM
DIRECTOR

ARB/bjc

cc: File

(HE-158) 29

CITY OF
SOUTH LAKE TAHOE
CALIFORNIA
P. O. BOX 1210 – SOUTH LAKE TAHOE, CALIFORNIA 95705 – PHONE (916) 541-2900

February 19, 1980

Janet Rosati
U.S. Environmental Protection Agency, Region IX
215 Fremont St.
San Francisco, California 94105

Attached hereto are the comments offered by the City of South Lake Tahoe on the Draft Environmental Impact Statement for the South Tahoe Public Utilities District and Douglas County Sewer Improvement District No. 1 proposed Wastewater Treatment Facilities. These comments are not included in this letter because of volume.

In transmitting these detailed comments, however, there are four points which must be emphasized that apply to the entire document.

1) The City of South Lake Tahoe has generally been overlooked in the Environmental Impact Study. This regards current conditions as well as prospective developments under any scenario. We think this omission to be substantial and not explainable in view of the staff contact between City and Environmental Protection Agency consultants.

2) Basic assumptions which define the separate scenarios are not correct. This leads to incorrect projection of consequences. These assumptions, and their needed revision, are discussed at length in the attached.

3) The document itself mingles data applicable to the entire Tahoe basin with data which concerns only the STPUD service area. This mixing makes it difficult to assess impacts, project consequences or relate effective mitigation steps.

4) The mitigation measures contained in the EIS have several limitations: (a) they are not ranked according to importance; (b) they are not defined as to the minimum number required to offset identified negative impacts; (c) they are not separated between those which deal with current conditions and those which deal with future situations; (d) responsibility for implementation is diffused among many agencies rendering it difficult, if not impossible, for STPUD compliance.

We are anxious to assist the STPUD in their efforts to proceed with grant approval and construction. We offer these comments to help that goal, not to obstruct it. We believe that the presentation of the draft EIS and the measures identified to deal with impacts must be revised if we are to achieve this goal effectively. The city is deeply troubled by the gross inadequacies found in the DEIS because the probable result of criticism about the document is to prolong the process while it is reconstructed. However, such delay is not in the interest of the public. Health, safety and legal obligations dictate that STPUD proceed with enlargement of wastewater treatment facilities at the earliest possible date. We therefore urge that EPA consider any means possible which would facilitate grant processing simultaneous with EIS repair.

Norman C Woods

Norman C. Woods
For City of South Lake Tahoe

NCW:dh

cc: South Tahoe Public Utilities District
Douglas County Commission
El Dorado County Board of Supervisors

DETAILED COMMENTS FROM CITY OF SOUTH LAKE TAHOE, CALIFORNIA REGARDING DRAFT ENVIRONMENTAL IMPACT STUDY PROPOSED WASTEWATER TREATMENT FACILITIES SOUTH SHORE LAKE TAHOE BASIN

February 19, 1980

I. GENERAL SUMMARY:

These comments are not related to specific pages or paragraphs but are focused at the entire document. Our comments which relate to specific portions of the Draft Environmental Impact Study (DEIS) follow this summary.

1. Alternative projects to accomplish plant expansion are not detailed.
2. The consequences of no project at all are not defined. This city believes that no project will unfurl negative environmental impacts equal to - perhaps even greater than - those identified for growth.
3. Legal analysis of South Tahoe Public Utilities District (STPUD) obligations to property owners has not been studied.
4. Energy requirements for all the alternatives have not been studied.
5. Impacts shown for each alternative have not been assigned to the specific agency responsible for management or mitigation of the conditions. For example, fire protection comments do not segregate any of the various districts, United States Forest Service (USFS), California Division of Forestry, City of South Lake Tahoe and others. Each agency has a separate fire service rating, capability, resources and responsibility. Aggregation of all into a single statement serves none of the agencies or the public.
6. Consistently throughout the EIS there has been a lack of consultation with local officials competent in various fields. Of equal concern is the altogether omission of local official consultation where it was sought.
7. Absence of analytical allocation of expenditures and revenues to benefiting agencies. For example, if land owned by Caltrans contributes to a stated problem (such as erosion or siltation), the EIS should assign a dollar value to the correction of that agency's problem. In this way a financial estimate would be available for the involvement of city, county, special district, state and federal agencies. As presently written, the EIS imposes all costs directly upon STPUD or the local governments they can get to agree to a unified plan of correction.
8. Lack of clear evaluation of the constraints placed by regional government on local government which prevent achievement of the mitigation measures urged in the EIS draft. As an example, the City of South Lake Tahoe rejected a grant award under the Clean Lakes Act. This grant was to finance an erosion control project within

the City of South Lake Tahoe. This, in turn, was part of a city-wide program for siltation and erosion control. Regional agency controls prevented the project from being approved. Therefore, it is not possible for local government now to pledge ability to complete erosion control in order to achieve mitigation measures set forth for STPUD to gain as a condition of grant approval. The DEIS did not take into consideration nor deal with these constraints which also preclude use of available federal resources in other functional areas.

9. The City of South Lake Tahoe believes that the mitigation measures proposed in the Draft EIS are not assigned to the correct agency, are not possible to implement and may not achieve the desired results because they lack performance standards and measurement criteria which inevitably will lead to prolonged debate as to whether they were or were not accomplished. We have, therefore, prepared our mitigation plan and offer it for consideration. A copy has been filed with STPUD. (ATTACHMENT 3.)

Note: Numbers in parenthesis are page numbers in Draft Environmental Impact Study.

II. SUMMARY:

1. The STPUD is not known to discharge untreated waste directly into Lake Tahoe. STPUD export line breakage may have discharged to waterways but not to the lake itself. And this discharge was treated effluent. (1)

2. The STPUD sewer connection ban has been lifted but the cease and desist order remains in force. (2)

3. The issue to address is not how much growth will result from plant expansion but, rather, how much plant is needed for the expected growth. The plant does not regulate population; it is there to serve population.

4. Assumptions regarding noise, air, visual resources and land use are incorrect because of omissions or factual data not reported. (6,7)

5. Commercially zoned land cannot be developed beyond 100% because of council policy, land use restrictions, Environmental Impact Study (EIS) requirements, etc. (7)

6. Transportation assumptions omit reference to natural growth occurring without new construction, planned improvements and other factors commented on later in this response. (8)

7. Recreation facilities under public agency management are ill-defined and lack specific analysis of capacity/usage. Therefore, this summary of possible consequences is not complete. Additionally, no correlation between added residential development and use of recreational facilities as opposed to visitor use of

such facilities has been determined. (8)

8. Public services and fiscal concerns summaries are based upon incomplete or incorrect data and do not reflect projected consequences of future growth. (9)

9. Under cultural resources the conclusion is that residential development would result in loss of important areas of historic or cultural significance. This conclusion is incorrect because city development patterns preclude such land from development and data presented elsewhere in DEIS regarding this aspect as incomplete or incorrect. More details on this later. (10)

10. STPUD may not be able to "obtain commitments" from other public agencies to install identified mitigation measures. These measures may exceed legal, fiscal or other barriers beyond control of STPUD or the agency involved. Imposition of non-STPUD requirements as a condition of grant approval is not appropriate.

11. Table 4 incorrectly presents mitigation measures shown in DEIS. There are 116 of which 8 are repeats. This table only lists 21. Those listed do not reflect the responsible agency involved. (15) Attachment thereto is a suggested revision to Table 4. (ATTACHMENT 1)

III. INTRODUCTION:

The STPUD is not limited by the California Regional Water Control Board, Lahontan Region (CRWCB) as to annual sewer hookups at this time. The annual limitation on number is self imposed by the district. (19)

2. Housing demand on the south shore is created by forces other than casino development, second home buyers and retirees. Also involved are government employment, recreational activities and tourism. These needs must be recognized. (22)

3. A key assumption regarding growth is that "the growth process in south shore---can be related to capacity alternatives for wastewater treatment plants". Actually the treatment plants are there to serve the public. Therefore the plant must be sized to fit the demand. (23)

4. Existing Nevada law prohibits casino expansion and bans construction of new facilities. This statute was not reported on and this law directly affects assumptions made regarding casino floorspace growth. (24)

5. Assumptions regarding land use policies are unnecessarily limited. The option of "high" development should assume that present limitations on lot splits, subdivisions and multiple-family construction would be lifted. This would result in a projection of estimated population using the densities applicable to the properties

the City of South Lake Tahoe. This, in turn, was part of a city-wide program for siltation and erosion control. Regional agency controls prevented the project from being approved. Therefore, it is not possible for local government now to pledge ability to complete erosion control in order to achieve mitigation measures set forth for STPUD to gain as a condition of grant approval. The DEIS did not take into consideration nor deal with these constraints which also preclude use of available federal resources in other functional areas.

9. The City of South Lake Tahoe believes that the mitigation measures proposed in the Draft EIS are not assigned to the correct agency, are not possible to implement and may not achieve the desired results because they lack performance standards and measurement criteria which inevitably will lead to prolonged debate as to whether they were or were not accomplished. We have, therefore, prepared our mitigation plan and offer it for consideration. A copy has been filed with STPUD. (ATTACHMENT 3.)

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3. The issue to address is not how much growth will result from plant expansion but, rather, how much plant is needed for the expected growth. The plant does not regulate population; it is there to serve population.

4. Assumptions regarding noise, air, visual resources and land use are incorrect because of omissions or factual data not reported. (6,7)

5. Commercially zoned land cannot be developed beyond 100% because of council policy, land use restrictions, Environmental Impact Study (EIS) requirements, etc. (7)

6. Transportation assumptions omit reference to natural growth occurring without new construction, planned improvements and other factors commented on later in this response. (8)

7. Recreation facilities under public agency management are ill-defined and lack specific analysis of capacity/usage. Therefore, this summary of possible consequences is not complete. Additionally, no correlation between added residential development and use of recreational facilities as opposed to visitor use of

not now entitled to development. (25)

6. A major assumption not made is that the STPUD has a legal obligation to provide service to all of the 10,000 subdivided lots of record at this time. Enlargement of plant facilities to serve this ultimate demand can be phased over stated time periods. Or, if mechanisms are devised to relieve the District of this obligation through purchase of development rights, property trade or exchange, then lower ultimate build-out level would exist.

7. No reference is made in the assumptions regarding technology. It must be considered that technological developments not now available will either alter the method of treating wastewater or allow development to take place without damage to environmentally sensitive concerns, or both. Factoring in this possibility could give rise to a more complete build-out of existing lots without imposing fiscal restraints on local government to buy-out property.

8. Assumptions regarding acquisition of land by public agencies do not reflect a state-wide ballot measure to go before California voters in 1980 to finance the Tahoe Conservancy. Nor is mention made of the City of South Lake Tahoe Parklands and Open Space Commission. This agency is funded and has developed a master plan of land acquisition for council approval. With adequate funding in future years this agency could be quite effective in adding to the inventory of public lands ~~in the basin.~~ (26)

9. Table 6 projects housing build-out exclusively with construction of single-family structures. If multiple-family structures were permitted this could impact the conclusions. Also, if plans announced by the city to consider alternate patterns of development were permitted to get underway a trade off for reduced numbers of free standing single-family structures would occur resulting in lowered public agency costs for service to the population. (28)

10. Table 7 projects future construction of hotel/motel rooms. However, existing law does not allow for such construction. If it is assumed this law will be lifted then similar assumptions must be made for other restrictions which ban subdivisions, etc. (30)

11. Assumption of land use policies based upon California Tahoe Regional Planning Agency (CTRPA) policies is not explained nor justified. Given the litigation facing CTRPA regulations and recent court cases, further explanation is needed regarding this assumption. (34)

IV. EFFECTED ENVIRONMENT, ENVIRONMENTAL EFFECTS and MITIGATION MEASURES:

1. No reference is made to the possible effect that Project Skywater might have on changes to annual precipitation, water storage and water quality. This weather modification program is now underway and holds the prospect of increased water supplies.

2. No reference is made to the city-wide drainage improvement plan which has been adopted by the city. Nor is reference made to the erosion control systems envisioned by this plan as it would improve conditions on the south shore. The assumption that current practices will not change is not valid. (96)

3. Clear identification of Stream Environmental Zoned (SEZ) lands is needed through property description and map. There is some disagreement presently over the specific lands which might be so designated. Importantly, the land classification system now in use was not intended originally for man-made structures or habitation. Rather, the system was designed for evaluation of soils best suited for agricultural productivity. Reclaimed soil areas are not provided for. And, there are other areas worthy of segregation from development such as lands declared for open space and transportation corridor. (99)

4. The mitigation measure proposed for protection of SEZ lands types does not take into recognition the fact that drainage systems may not be constructed by a single lot development. For example, one house proposed for only one lot within a partially improved SEZ area cannot install a drainage system for the entire SEZ. And partial construction is impractical as the collected drainage would have no place to go. Infiltration trenches and drainage systems must be maintained but the description of this proposal fails to offer any suggestions as to how such on-going maintenance is to be financed. Finally, the proposal offers transfer to another location as one alternative for planned construction within the SEZ area. In order for transfer to occur, the public agency imposing transfer as a condition must be prepared to finance relocation. No estimates are provided for ensuing costs for such an arrangement or the source of financing. (99)

5. The city inventory of lots within the STPUD service area and classed as SEZ disagrees with the number shown in the report. The city shows the utility district serves 6,503 subdivided lots within its service area. This is approximately 54% of the existing subdivided lots within their service area (11,994 subdivided lots exist totally within their service boundaries). (100)

6. The description of responsible agencies for control of construction of SEZ lands lists: Tahoe Regional Planning Agency (TRPA), CTRPA, and the USFS. The forest service does not own any lands within the city limits and, therefore, is not responsible for control of such lands. Further, they lack authority for zoning. Both TRPA and CTRPA are planning agencies, not taxing agencies. They lack authority for condemnation of property and the levying of taxes. Therefore, these agencies cannot be assigned the responsibility for requiring construction of drainage improvements, maintenance, compensation and the like.

7. A mitigation measure is proposed that would involve an evaluative point system. It is stated that the City of South Lake Tahoe and the STPUD have developed such evaluative systems. The city reviewed such

a system as part of a larger study regarding community development policy. However, such a system was not adopted because of the lack of clear legal authority without compensation. The STPUD is not in the business of selectively determining eligible property for connection to its system and therefore has not adopted nor developed an evaluative system. Additionally, the discussion of the proposal does not take into account the lack of legal research of authority for such activity. Nor is a cost estimate provided to cover cost of purchasing lots deemed ineligible for construction. Responsibility for implementation lists TRPA and CTRPA, although as pointed out above in number 6, these agencies lack legal authority to levy taxes and pay for property taking. The state legislature is not listed as an implementing agency. However, legislation is needed in order to develop the means to accomplish this.
(102). It is suggested as a mitigation measure that owners be compensated
8. for lost development rights. The courts are listed as responsible for
implementation. However, the legislature should also be listed. No estimate
of cost for such action is offered. Nor is any revenue source suggested.
These limitations must be addressed if the mitigation measure is to be given
any serious consideration. (103)

Transfer of development rights (TDR) is suggested as a mitigation
9. measure. However, again, as above, the legislature is not listed as
responsible for implementation. Without clear legislative authority
such action cannot be undertaken. Neither TRPA nor CTRPA have
financing to acquire land banks which could be used for transfer of
building sites. (104)

A suggested mitigation measure for geology and soils is the
10. enforcement of building codes. These codes are presently enforced by
the city and reference to this should be given. (108)

Most of the identified unique and sensitive areas are outside the
11. boundary of STPUD and therefore not pertinent to the DEIS. (110)

12. The description of "rare, threatened or endangered" species found at P.110 is inconsistent with the description prepared on the table below by the Western Federal Regional Council (WFRC) in the "Lake Tahoe Environmental Assessment" found at P.154-155. This needs to be explained.

Western Federal Regional Council
Table 29: Sensitive Plant Species of Lake Tahoe Basin & Vicinity

Scientific Name	Common Name
*Carex paucifructa**	Sierra Sedge
Draba asteropha var.* *asterophora*	Tahoe draba
Draba asterophora var.** *macrocarpa*	Cup Lake draba
Draba cruciata var.** *cruciata*	Mineral King draba
*Draba stenoloba var.** *ramosa*	No common name
Lewisia pygmaea ssp.** *longipetala*	Long petaled lewisia
Navarretia prolifera ssp.** *lueta*	Yellow bur navarretia
*Roippa subumbellata**	Tahoe yellow-cress
*Silene invisa***	Catchfly
*Veronica cusickii***	Cusick's speedwell

* Agree with DEIS
** Do not agree with DEIS

13. The description of wildlife conditions is inconsistent with the WFRC report. The latter declares that the basin has "sensitive, but not endangered species". (159) The DEIS declares that the southern bald eagle is endangered along with the peregrine falcon. (113)

14. The WFRC report describes fishing as dominantly lake oriented (at 147) and is affected primarily by past practices and by construction of improvements and structures on the shoreline. It is not clear that potential growth within STPUD would correlate with intrusions from the shoreline into the Lake. (116)

15. A mitigation measure not listed is the planting of fish in existing streams. This should be considered as a possibility. (118)

16. The discussion of ambient noise does not compare to present levels to

future noise-levels resulting from future development. Early in the DEIS it stated that measures proposed for installation cannot deal with conditions as presently existing. However, in this portion of the DEIS there is a mixing of control measures which deal with proposed conditions and measures which deal with current conditions. (119)

17. The section on noise does not adequately address the Airport Noise Control Land Use Compatibility (ANCLUC) study now in progress at the airport. This study has a great bearing on future noise thresholds and the development of effective control systems. (120)

18. A subjective review of litigation effecting airlines formerly serving Lake Tahoe does not appear to relate to the findings regarding ambient noise levels and suggested mitigation. Additionally, the action is moot by virtue of cessation of service. (120)

19. Factual data supporting conclusions is not provided regarding noise conditions. It is said that complaints regarding noise from vehicle operations have increased. However, the City of South Lake Tahoe has not experienced this increase and no data is furnished to explain the statement. (122)

20. Fiscal implications of ordinance adoption and enforcement are not reported. (125)

21. The discussion on air quality does not report that the air attainment plan as adopted by the Califorina Air Resources Board (CARB) has been challenged by the City of South Lake Tahoe, Placer County and El Dorado County. The plan was not prepared by a lead agency recommended by local elected officials. Consultation with local elected officials as required by the Clean Air Act did not take place prior to adoption. Additionally, the plan contains control measures deemed not feasible for implementation nor possible to finance. This adopted plan has not been approved by the Environmental Protection Agency (EPA) and the plan itself is under appeal from the local agencies to the CARB. Recent conversations with CARB representation indicate that the Tahoe Basin Air Attainment Plan will be subject to further revision to reflect actual steps already taken to improve air quality and revisions to the future control measures. (128)

22. The summary of existing conditions omits reference to the fact that the Clean Air Act specifies that the lead agency for plan preparation is to be recommended by local elected officials within the designated planning area. The local governments within the Tahoe basin (California side) recommended an alternative lead agency not designated by California. This designation was protested and the protest as yet is unresolved. (128)

23. The air attainment plan as adopted by the CARB is contested by local government on the basis that measures were adopted which cannot be implemented and which are not financially feasible. On-going review is taking place regarding this plan and it is anticipated that amendments will be considered by CARB. It is also planned to develop a joint powers authority to be the lead agency for planning and

implementation of air quality measures. Such an agency would embrace all local government on both sides of the state line. (129)

24. Given the above information and the continuing need for hot spot identification and control along with the need for positive visibility standards, the suggested mitiation measures listed need revision and comment to reflect actual conditions. (133)

25. Comments respecting visual conditions and suggested mitigation for future visual impacts mingle current and prospective conditions so that it is difficult to appraise those measures recommended for treatment of probable future conditions. The WFRC study at 169 observes that "there are no formalized visual quality objectives for these lands". Discussion dealing with related visual criteria is not reconciled with the statements contained in this study. (137)

26. Visability standards do not exist in the basin and there has been no monitoring to quantify adherence to visibility measurements. (see page 113 of the WFRC study). Additionally, subjective descriptions for artists renderings depicting the visual background at Tahoe do not relate themselves to future conditions arising from plant expansion. For example, it is stated that "ski slopes scar the mountain backdrops". It could be pointed out that natural occurrences, such as landslides at Emerald Bay also scar the backdrop. These "scars" will remain whether STPUD facilities are or are not enlarged. Similarly, it is stated that "fences or walls along the roadside that interrupt the natural character of the environment". First of all this is a highly judgemental observation; some would argue that well designed fences blend in with the alpine setting ~~and provide a shield from urban land~~ forms. Secondly, and as pointed out above, whether a sewage treatment plant is enlarged or not does not change the existence of such fencing whatever evaluation is applied to it. Further, it must be pointed out that existing design controls and protection of amenities within the city provides that as residential development takes place it will be visually protected. Finally, planners have often rcognized that opportunity for enchancement of visual resources is improved with high density construction as opposed to scattered single-family construction. (138, 139)

27. Measurements to explain the ratings listed for future development are not provided. Clarification is needed for terms. For example, "major roadways likely to be blocked". These locations need to be identified on a map or named. Present development patterns within the City of South Lake Tahoe are not likely to be placed on existing major roadways. "Continued highrise development" is undefined. Highrise development is not allowed within California and TRPA controls restrict Nevada structures. Absence of a visibility monitoring system is listed as a concern. However, no reference is made to any community where such a system is installed and operating which could serve as a guide for this area. (140)

28. It is declared that increased development would worsen visual problems. However, this conclusion is not supported with any factual data. (141)

29. Revision of present CTRPA controls on density allowances and coverage limitations is an effective means to combat the visual concerns set forth in this section. Clustering buildings, aggregation of vehicle parking and redevelopment are all viable means of dealing with protection of the visual amenities while providing for the needs of an increased number of persons. The USFS is identified as an agency responsible for implementation of the mitigation measures which involve zoning, design review, etc. The USFS has no jurisdiction over these local government functions and has no land within the city even if they did. Cost of mitigation is limited to "Administrative". Undoubtedly the adoption of further design controls, protection of visual amenities and related measures will impose a considerable cost upon the public agencies involved to provide for setback variances, vista views, maintenance of the open areas and so forth. (141)

30. One mitigation proposed formation of a National Recreation Area. This measure is described as it "could be most effective measure". Yet there is no discussion nor evaluation of this proposal as it relates to the maintenance and operation of local government facilities; expenditure-revenue requirements; analysis of how such National Areas have attained or not attained stated objectives elsewhere in the United States; or whether the perceived advantages of the Recreation Area are so substantial as to fully meet all probable impacts of STPUD expansion. (142)

31. It is declared that "most gambling related development is on the California side of the basin". This statement needs expanding for explanation. (143)

32. Table 30 should show the amount of public ownership located within both the STPUD and Douglas County Sewer Improvement District (DCSID). (144)

33. Description of events leading to the need for regional planning within the basin should include reference to existing state law which mandated cities and counties to process subdivisions and lot splits. Legislative enactment did not permit discretionary review over land development. Similarly, special district formation and assessment proceedings were permitted by property owner initiation. (151)

34. It is stated that the CTRPA plan and land use ordinance apply on the California side of the basin. At best this is arguable. The point is contested presently in court and is not at all clear. There is a counter position that the state of California was preempted from futher land use planning and legislative enactment when Congress approved the bi-state compact. (152)

35. The City of South Lake Tahoe is only in a position to review those land use applications that originate within the city limits. Applications for property within the unincorporated area of Placer and El Dorado Counties are reviewed by those agencies. (152)

36. The City of South Lake Tahoe has adopted TRPA land use ordinances. The city has not adopted CTRPA ordinances. (152)

37. The land capability system was not originally intended for evaluation of use for habitation or man-made structures. Originally intended for agricultural development it was adopted for the application of man-made activity. (153)

38. Within the City of South Lake Tahoe there are not any known instances of land use approvals which are not in conformity to the TRPA designations. If there are such known approvals in conflict they should be listed. (153)

39. CTRPA ordinances do not provide for variances. (153)

40. Scenario 5 in depicting impact of land use is shown as building-out 100% of residential area and 105% of commercial. However this scenario does not purport to build-out all 11,000 estimated remaining subdivided lots. Even if it did, there remains unsubdivided lots zoned for commercial and residential that would not be developed because subdivisions are not allowed. (154)

41. The measurement assumes that the smaller the percentage of land developed, the greater the flexibility in planning and coordinating location and timing of development to avoid conflicts between land use, environmental quality, and economic conditions.

    Land development considerations are based on location surrounding land useage and planning, demand and availability of resources, rather than area-wide or state-wide averages of usage. A larger or similar percentage of land available, or land developed, does not directly relate to flexibility and planning options nor in the avoidance of conflict between land use and environmental quality. (155)

42. Statements regarding housing stock in the basin are 9 years-old and do not reflect more current data now available. Summaries of vacancy rates and trends lack reference to hard numbers, justification and research. (158)

43. Housing prices are shown to have escalated. However, supporting data to document this is needed. (158)

44. It is said that retired and second home buyers are increasing. This does not comport to data collected by the city in its housing element. Portions of that element are included as an attachment. Data supporting the DEIS findings are required. (159) (ATTACHMENT #2.)

45. The DEIS states that in 1974 nearly 20 percent and by 1976 an even larger percentage of resident families owning homes in the south shore were paying more than two times their annual income for housing. (159) (ATTACHMENT #2.)

46. In discussing placement of new housing stock it is said that, "It is not possible to identify which those (lots) would be, especially since permits are granted in STPUD on a random basis". This statement is

quite correct but clearly conflicts with earlier conclusions within the DEIS regarding air quality, visibility, reliance on major arterials, etc. If the location of housing is not predictable, then the forecasting of lost visual resources is not predictable. (164)

47. Moderately priced housing should be encouraged inside the basin as well as outside. (164)

48. One mitigation measure to improve housing stock related to improvement of neighborhood facilities is to encourage private sector investment. However, no costs are provided to show the local impact of this measure. Such cost estimates are possible to develop, are needed and should be provided. (166)

49. A suggested mitigation measure is that casinos be encouraged to provide housing stock when undertaking expansion of casinos. As pointed out previously, casino expansion is no longer permissible under Nevada law. Therefore this is not a viable mitigation measure. (167)

50. If this mitigation is to be retained despite the objection mentioned above, the implementing agency would not be TRPA but the Nevada legislature. (167)

51. There are several bus systems operating within the basin. Greyhound, Grayline and LTR carry passengers from points outside the basin and are regulated by state agency. There are also 11 firms operating 22 units for public conveyance at no cost to the rider under authority provided by the City of South Lake Tahoe. Then there are two public agency systems. TART is operated by Placer County and by agreement with Washoe County, Nevada now extends from Tahoma to Incline Village. However, this system is totally outside of the service area of either STPUD or DCSID. The City of South Lake Tahoe runs a full time 24-hour day, 365 days a year system with a main line connecting the Stateline and the "Y" along with feeder loops. In addition, this system is presently augmented by a 3-loop ski-bus service during the skiing season at Heavenly Valley and a summer beach service with cooperation from the USFS is planned for May, 1980. The City of South Lake Tahoe operates 11 vehicles in its service and is in the process of acquiring new vehicles to replace present rolling stock. Over 600,000 passengers were transported during fiscal 1978-79. More current ridership data is available if requested. Although cash fares have been set at 75¢ per trip, this fare applies only to adult passengers not buying tokens. Tokens, student and senior fares are lower than the stated 75¢ amount. Additionally, the city is exploring several marketing proposals to enhance ridership that will include monthly passes, tour package courtesy rides, etc. (170)

52. Several observations are made regarding transportation which require further data and evidence. It is said, A) that "attempts to reduce traffic congestion by increasing traffic capacity can be expected to

bring about further increases in casino-related traffic"; B) that "traffic increase resulting from higher capacity would be large", and C) that widening and constructing roads to increase traffic capacity would double the volume of traffic related to casino use". These assumptions do not concur with studies undertaken by the city in conjunction with Caltrans and others. The recently completed JHK Associates analysis of the U.S. 50 corridor suggests that capacity improvements are vitally necessary for present day concerns with environmental protection, public safety, law enforcement and emergencies. Further, that capacity improvements would reduce hot spot air quality problems. This conclusion is also supported by the WFRC study mentioned above. Additionally, Caltrans has not completed a computer modeling of the result of completing a part or all of the transportation corridor which would carry certain types of traffic around the core area. Therefore it is not known at this time what the results would be of such additional capacity enlargements. The newly formed joint powers transportation authority does plan to undertake these long range analyses as soon as practicable. It is also believed that capacity improvements, together with a well-managed, comprehensive transportation program can balance the use of the existing roadways to avoid the problems identified in the paragraphs cited here. A simple reading of the cited section would lead the uninformed reader to believe the situation to be somewhat hopeless and that there were no efforts underway to deal with the situation. It is requested that this section of the DEIS be revised and rewritten to describe the situation as it exists and to outline the alternative plans available for implementation. (173)

53. One transportation mitigation measure deals with adding busses and establishing a basin-wide transit agency. As pointed out before, the DEIS is confined to the service areas of STPUD and DCSID. Therefore, this measure should confine itself to the formation of a transit agency for the two sanitation districts. This has already been done and should be recognized. There is data collected indicating that the addition of more busses would reduce traffic volume more than 2%, provided that specified companion measures were undertaken to make the bus service more viable and convenient (passenger shelters, monthly passes, special routes, etc.) These steps are being undertaken in part with a marketing project being completed by Caltrans. The cost estimate furnished for this measure is somewhat out of date. More current data is available, again from the JHK study. Of the estimated cost, about 80%, rather than the 50% shown, is available from Urban Mass Transit Agency (UMTA) funding provided certain restrictions on the use of those funds were dropped. Finally, the timing for this measure is not 5 years, but now in 1980. (174, 175)

54. Cost estimates for the concept of a light rail system differ from those offered by CTRPA. The JHK study (see attached) is the accepted estimate of transportation planning and implementation on the U.S. 50 corridor at this time. (175) (ATTACHMENT #4.)

56. The agencies identified for mitigation measure number 4 do not list either state legislature. Legislative enactment is essential to any consideration. (176)

57. Table 35 identifies recreation capacity and shows 203,700 acres. Is this within the STPUD service area? How do the subject service areas relate to the inventories shown? (177)

58. The discussion of recreational facilities is seriously deficient. First of all the City of South Lake Tahoe does not own all the beaches attributed to it. El Dorado beach is part of a larger ownership owned by El Dorado County and leased to the city. In addition, the city operates a boat ramp on the shoreline of Lake Tahoe; maintains an Art Center, a Developmentally Disabled Center, Women's Center, Scouting Hall, Recreation complex and a variety of outdoor recreation facilities including an all-weather swim pool, volleyball, handicapped outdoor playground, softball and football fields, tennis courts and has plans for an ice rink. The city has also installed a major portion of a bike trail master plan which is under the recreational program of the city. Finally, the North Tahoe Public Utilities District is outside the service area of DCSID and STPUD. Since partial listing of school operated facilities is listed for the DCSID it would be appropriate to also list the facilities provided by the Lake Tahoe Unified School District (LTUSD). Lastly, the unincorporated area within the STPUD service area also benefits from a recreational resource provided by the Tahoe Paradise Resort Improvement District and their facilities should be tallied. (178)

59. The South Lake Tahoe Visitors Bureau, Inc., conducted five visitor surveys during the period - October 1978 through September 1979. Below are the results of the question: "What is the primary purpose ~~of your visit~~ to Lake Tahoe?"

Winter/Summer Sports	22.5%
Scenic Beauty/Sights	20.5%
Business/Convention	13.7%
Entertainment	12.5%
Other	9.75%
Gambling	9.0%
Friends/Relatives	7.0%

Our research does not show gaming in the same ranking as the ERA study of 1975. However, there may be a distinction between asking "What is the primary purpose of you visit?" vs. "What is your favorite activity?"

We take exception to the visitor levels shown in the EIS. We do not have a particularly high visitor level during the ski season, i.e. between December and March. Our ski season still has a way to go before it is financially competitive with the traditional image of Tahoe as a summer resort. (179)

60. An attempt is made to measure forecasted impacts upon the lake shoreline, noise, traffic, air pollution, etc., resulting from the upgrading of recreational experience. This section needs expansion and revision to clarify the type of recreational resource: is it federal, state, county or city? Also, the type and location of such recreational development needs to be defined and measured against the

perceived impacts logged on the table. For example, completion of the bike trail system would constitute development of a recreational resource. However, it would benefit air pollution by reduction of vehicle trips. It would also permit persons to enjoy the natural setting in a way not possible at present. Similarly, the City of South Lake Tahoe contemplates completion of Vista View Park. This recreational resource would provide a measure of shoreline erosion control and at the same time afford visitors and residents an opportunity for pastoral and photographic enjoyment of the Lake not now available. The measurements listed in the table appear to be subjective and some indication is needed of the data gathered to arrive at the listed impacts. For example, scenario 5 shows extreme impact on access to the lake shoreline. It is not clear at all how this was determined since the lake shoreline cannot be impacted by further development. Substantial portions of the shoreline are in public ownership now, particularly within the City of South Lake Tahoe. And, if development were permitted on existing subdivided lots there is no way such development could reach out to block existing lake view, lake access or shoreline developments. (181)

61. It is stated that "public access to the lake shoreline is already limited". This assertion needs better definition and data to support it because within the city beach access is extremely good. (181)

62. Under mitigation measures for recreation there are several agencies listed as having responsibility for implementation. However, the city, Douglas County, El Dorado County and local special districts are not listed. They should be. (182)

63. The description of law enforcement services available to the area omits reference to California Highway Patrol, Nevada State Police, California Fish and Game Wardens and USFS patrols. These staffing ratios must be factored into the estimated numbers furnished. Additionally, the present staffing ratios for the city do not agree with those listed in the DEIS. The city shows a total of 45.25 sworn officers for a permanent city population of 21,000 or a protection ratio of 2.2 officers per 1000 persons. Similar ratios should be identified for the other law enforcement agencies within the target area. (183)

64. Fire protection is described as being at a "minimum level". This statement needs clarification to show the specific ratings in the separate service areas within the DCSID and STPUD. Also, fire flow levels available within at least the city should be identified and related to the established fire rating. So too, should some description be available of equipment and trained staffing. (184)

65. Reference is needed to data and research used to compile the measurements of solid waste collection and disposal systems. Are the forecasts based upon reported current waste volumes as shown in the El Dorado County solid waste plan? (188)

66. The description of current circumstances should reflect the Tahoe Basin Association of Governments Regional Study (TBAG). This study is

a preliminary evaluation of resource recovery and/or recycling which may be available to the region.

67. Comments regarding the South Tahoe Refuse Company transfer station need to be brought current to reflect expansion plans now in process; actual loading capacity upon enlargement, number of transfer vehicles hauling to the point of disposal; and, related factors. (188)

68. It is reported that the Gardnerville landfill has a 20-year capacity. This statement needs support with reference to data source. Other concerns besides capacity at the site need to be reported. These concerns give rise, in part, to the regional study mentioned above. (188)

69. It is reported that enlargement of the existing transfer station would "remove valuable wildlife habitat". This is not true. The expansion is proposed to be built on property which is already covered with man-made improvements and impervious coverage. (189)

70. The table describing per-unit costs to develop public service needs more detail and clarification. What is meant by "no new capital facilities for water services". Does this preclude municipal bond issues or property owner initiated assessment proceedings to finance improvements? (190)

71. The term "special assessments" needs definition. The CTRPA has deemed such assessments to be growth inducing. Further discussion needed. (191)

72. Adoption of a regional tax base sharing is suggested or a mitigation measure. A major change in the laws of both states is required to achieve this and further discussion is warranted. (194)

73. It is proposed that developers be required to pay for incremental increases in public services required for additional growth. New subdivisions are banned. It is not possible or practical to require single-family development to finance this type of public service expansion. (194)

74. The proposed mitigation measure #11 is now done. (195)

75. Proposed mitigation measure #12 is now done. (195)

76. Proposed mitigation measure #13 is being worked on now. (195)

77. Identified mitigation measures for wastewater treatment do not list the possibility of on-site treatment and disposal or new technology processing centrally treated wastewater. (208)

78. Mitigation measures #10 and #11 are in process. (210)

V. TECHNICAL APPENDICES:

1. Housing scenarios do not reflect possible growth range if unsubdivided lands were subdivided. (9, 11)

2. Assumptions for roadway configurations do not reflect prospective completion of the Loop Road or analysis of by-pass utilization. (78)

3. Visual conditions: Unit 1. Commercial signs have been diminished because of city sign ordinance enforcement. Additionally, the city has diminished overhead wires and signs over the years. More measurement data is needed to support these conclusions. (108)

4. Visual Conditions: Unit 35. On-street parking is not permitted on U.S 50. Further justification needed to support this conclusion. (190)

5. U.S. 50 Strip: Number of commercial signs has decreased both in size and number. (see also #3 above). The Park Tahoe structure does not block mountain views for any resident. The only change to the skyline occurs to visitors at the immediate stateline commercial district. From the lake or from the mountains south of the city the structures can barely be noted because of siting and design considerations. (111)

6. More data is needed to support the statement that commercial uses south of U.S. 50 on SSR 89 "has increased somewhat". This statement is not supported by city records or casual observation. (111)

7. More information is needed to explain the statement that single-family homes have been converted to tourist accommodations. City records do not verify this. (111)

8. Further explanation is needed regarding the statement that city police services are "divided equally between the residents and tourists". This is not the staffing basis for management of law enforcement within the city nor do current records of accident investigations and criminal reports support this conclusion. (212)

9. State law mandates export of solid and liquid waste from the basin, not just TRPA. (213)

10. Analysis of financing available from various revenue sources does not touch upon the possibility of new county formation. This has been researched at length by the City of South Lake Tahoe and should be taken into consideration. (222, 223)

11. Coordination of land use planning, budgeting and capital facilities planning can be achieved by the TBAG and by the proposed area-wide planning commission being considered by the City of South Lake Tahoe and El Dorado County. (227)

12. Consolidation of special districts requires voter or property owner initiation. It may also require revision to existing state laws. The role of Local Agency Formation Commission (LAFCO) in California should be discussed with respect to the feasibility of consolidation. (227)

13. The discussion of cultural, archaeological and historical resources should include reference to data compiled by the Lake Tahoe Historical Society which may have a bearing on assumptions. (247)

14. City responsibility includes law enforcement and transportation which are not mentioned. (331)

15. Efforts to tie city/county programs together on a bi-state basis through TBAG joint powers agreements and regional planning needs mention. (331)

16. Legal issues section is substantially incomplete and excludes reference to pending litigation in state and federal courts which impact on Tahoe basin land use controls, existing organization and regulations. The legal issues analysis prepared for the EIS fails to adequately deal with the extensive litigation which has taken place over the past few years. The litigation which is addressed in the EIS speaks only about litigation which directly concerns water and treatment capacity issues. Were the EIS similarly limited we would have very little in the way of additional comment. The EIS, however, seeks to address substantive land planning issues and their legal consequences as well, and for that reason the legal commentary is inadequate.

    Land use litigation in the Lake Tahoe basin has fallen into three broad categories. First, there is the litigation concerning the validity, structure, and authority of the TRPA, created by interstate compact. The specific case citations of that litigation would consume far too much space and time to detail within the scope of these comments. It is sufficient to say, for these purposes, that the basic structure and operation of TRPA has been judicially declared valid, although conflicting opinions still exist as to its relationship with the CTRPA. and some voting processes used by the TRPA. The second broad category is that of litigation concerning the validity and structure of the CTRPA. At this writing the City of South Lake Tahoe is pursuing litigation in both state and federal courts testing the basic assumptions inherent in the EIS. That is, that CTRPA is not preempted by TRPA and that CTRPA may take actions in conflict with those of TRPA. Within that litigation there are also legal questions raised as to the validity of various CTRPA ordinances, whether the CTRPA structure violates the one person-one vote principal, whether local agencies can be constitutionally required to enforce CTRPA ordinances, the conflict between state requirements for providing affordable housing and CTRPA's ban on multiple-family construction, and various other constitutional arguments too complex to be detailed in the space of this response. At this point, all that can reasonably be said is that virtually every assumption as to the legal authority of CTRPA made within the EIS is presently being challenged by the city and/or other local governments in the state and federal courts. Detailed citations can be provided, should that be desirable. The third class of cases revolve around specific public works improvements, most notably the Loop Road. Again, without going into great detail, the city has agressively litigated CTRPA's ability to block certain public works projects on grounds of both public safety and lack of jurisdiction. This litigation has taken place in both state and federal courts and at least one of those actions is still pending in the federal courts. (7)

In summary, the EIS makes certain legal assumptions regarding the jurisdiction of CTRPA and other agencies which is at best debatable and in every case litigation is on-going. The EIS should either expressly state that it is limiting its legal analysis to those cases dealing with physical operation of the treatment plant, or should fully address all pending litigation concerning land use regulation in the Lake Tahoe basin.

ATTACHMENT I

SUGGESTED REVISION OF TABLE 4 MITIGATION MEASURES FOR ADVERSE IMPACTS ON NATURAL RESOURCES

IMPACT AREA	MITIGATION MEASURE	RESPONSIBLE AGENCIES
GENERAL	1. Revise the bi-state compact	State of California and State of Nevada.
	2. Modify existing legislation.	State of California
WATER QUALITY	3 Protect stream environment zones.	State, County, City.
	4. Employ best management practices to control erosion (slope stabilization, revegetation, roadside and storm drainage, on-site infiltration, etc.).	Soil Conservation Service, County, City
	5. Insitute evaluative point system and limit on number of sewer connections to control location and level of growth.	Local Governments.
	6. Implement water quality monitoring program.	CWQCB, (Lahontan Region), California Department of Water Resources, Nevada DEP, Nevada Environmental Commission, EPA, USFS, U.S. Geological Survey, U.C. Davis.
	7. Purchase lots in environmentally sensitive areas.	County, City.
	8. Compensate landowners who experience loss because of development restrictions.	Legislature.
	9. Implement system to transfer development rights to compensate owners for loss of land and to preserve critical areas. Develop new technology.	County, City, STPUD.
SEISMIC SAFETY	10. Implement land use controls to control location of development.	Local Government.

ATTACHMENT 1 continued...

IMPACT AREA	MITIGATION MEASURE	RESPONSIBLE AGENCIES
BIOLOGICAL RESOURCES	11. Control recreational use of habitats frequented by valuable fish and wildlife species.	TRPA, California and Nevada Departments of Fish and Game, USFS.
	12. Protect active osprey nests.	TRPA, California Department of Fish and Game, USFS.
	13. Require biological inventories for rare and endangered species as part of development application.	TRPA, California Department of Fish and Game, USFS, U.S. Bureau of Land Management.
	14. Require adequate construction and management practices to protect vegetation and habatat.	TRPA, USFS.
	15. Protect stream environment zones and implement erosion control standards.	(see "Water Quality".)
NOISE	18. Implement noise control ordinance.	Local Governments.
	19. Revise zoning ordinance to prevent incompatible land uses.	Local Governments.
	20. Establish special permit procedures to implement noise reduction measures.	Developers, local Government.
	21. Construct noise barriers along major highways.	Caltrans, Nevada Department of Transportation.
AIR QUALITY	22. Implement measures adopted in the approved non-attainment plan.	Local Governments, TRPA, CTRPA, others identified in the non-attainment plan.
VISUAL RESOURCES	23. Implement measures protecting water and air quality.	(see "Water Quality" and "Air Quality".)
	24. Adopt design plan with implementing ordinances for design review.	Local Governments
	25. Establish National Scenic Area	U.S. Congress.

ATTACHMENT 2

SUMMARY

HOUSING ELEMENT UPDATE - BACKGROUND REPORT

SUMMARY AND CONCLUSIONS

The Lake Tahoe Basin, one of the West's most popular weekend and vacation resort areas, has combinations of housing patterns and problems which present a unique challenge in the planning of housing. As a resort area, the Basin is subject to a large influx of vacationers and seasonally employed persons during the peak periods. This influx puts a strain on available housing and consequently results in the artificial inflation of housing prices beyond the means of may of the permanent and seasonal residents. In addition to the population pressures, California Tahoe Regional Planning Agency's Land Use Ordinance restricting the development of much needed multi-family dwelling units, limited sewer capacity, limited land availability and high costs of construction all contribute to the high costs of housing.

In terms of a summary description of housing conditions and demands, this section presents selected data from the body of the Housing Element update of the City of South Lake Tahoe.

Population

In 1979, the permanent population of the City of South Lake Tahoe was estimated at appproximately 21,700 residents. This compares to 17,125 persons in 1971 and represents an annual average growth rate of 3%. Based on the average of several growth scenarios for South Lake Tahoe, the ultimate permanent population for South Lake Tahoe was estimated at approximately 53,088.

Population Characteristics

The South Lake Tahoe population is characterized by a relatively large percentage of persons in the 20 to 34 age group, most of whom are white. There is a relatively low percentage of older persons (60 years+ = approximately 8%). Historically, the population is approximately 95% white and there are more males than females (approximately 51% males and 49% females). The average household size for South Lake Tahoe is relatively low at an overall figure of 2.5 persons per household (1975).

Between 1969 and 1975, South Lake Tahoe's median household income increased approximately 33%, from $7,588 (1969) to $11,336 (1975). This represents an annual average increase of approximately 6%. Based on the Section 8 definition of "lower income households", there were approximately 17% very low income households and 26% low/moderate income households residing in South Lake Tahoe in 1975. Thus, low-moderate income households represent approximately 43% of the total South Lake Tahoe households. This reflects the seasonal nature of the economy and lower wage rates typical of the service/service-related jobs.

ATTACHMENT 2 continued...

Employment

In 1975, the El Dorado County portion of the South Tahoe Basin (the bulk of which is the City of South Lake Tahoe) had a labor force of approximately 12,621. Some 86.7% were employed, while approximately 13.1% were unemployed. This unemployment rate was significantly lower than the 20.5% unemployment experienced on the West Slope of El Dorado County. (see figure 1).

Figure 1

EMPLOYMENT/UNEMPLOYMENT - 1975

EL DORADO COUNTY

	West Slope	Tahoe Basin
Labor Force	17,379	12,621
Employment	13,810	10,965
Unemployment	3,659	1,656
Unemployment Rate	20.5	13.1

Since then, according to the State Employment Development Department, the unemployment rate for the Tahoe Basin portion of El Dorado County has been decreasing, indicating a-stabilization in the economy is occurring. (see figure 2).

Figure 2

EMPLOYMENT/UNEMPLOYMENT - 1976-1978

EL DORADO COUNTY

	1976	1977	1978
Labor Force	13,211	13,820	14,750
Employment	11,706	12,425	13,664
Unemployment	1,505	1,395	1,086
Unemployment Rate	11.4	10.1	7.4

In that the base of the South Tahoe economy is tourism, it follows that a good portion of the work force is employed in service and service-related industries. In 1975, approximately 45% of the Principal Wage Earners in South Lake Tahoe were employed in gaming/wholesale and retail sales; approximately 11% were employed in construction; 11% in transportation, communications and utilities; 5.4% were in real estate; 7% were in government; 5% were employed in professional services.

ATTACHMENT 2 continued...

It is the group employed in the service-related industries that experience lower salaries coupled with the uncertainty of year-round employment. An analysis of the percent of household heads employed in gaming/wholesale and retail trades by Census Tracts and the percent of low/moderate income households by Census Tracts indicate that the bulk of low/moderate income households in South Lake Tahoe have household heads employed in the service-related industries.

Housing Supply

In 1975, there were approximately 11,439 housing units in South Lake Tahoe, up from 8,528 units reported in 1970. Of the 11,439 housing units, approximately 30% were reported as vacant, a good portion of which is believed to be held for second home/seasonal use. Of the occupied units, approximately 61% were occupied by renters while only 39% were occupied by owners. The high percentage of renters is typical of a resort community whose seasonal economy employs a high number of transient service workers. By January, 1979, another 1,684 units were added to the housing stock, bringing the total up to approximately 13,123. Conversations with knowledgeable persons indicate that approximately 72% of the housing stock is now being utilized for year-round occupancy. This compares to the 56% units available for year-round occupancy in 1970. Although the number of vacation/second homes being released for year-round occupancy is increasing, this trend alone will not relieve the shortage of affordable housing in South Lake Tahoe.

Housing Conditions

Although the City of South Lake Tahoe is only fifteen-years old, over half of its dwelling units were built before incorporation. Approximately 58% of the total housing units in the city have reached the age (fifteen-years and older) when structures begin to develop problems which, if not corrected, can lead to serious deterioration.

A windshield survey of housing conditions conducted in 1979 placed 16.4% of the housing stock in the "needing moderate to extensive rehabilitation" category. The most common problems found involved roofs and foundations. Many of the older structures were built on piers. Others were not constructed to withstand the heavy winter snows which typify the area.

It is more than likely that the number of housing units in need of rehabilitation will increase. Restrictions on the development of new housing will, over the years, raise the percentages of "older" units within the City. The extreme weather conditions in the area will serve to escalate the deterioration process. Finally, continued government restrictions will discourage and, at times, make it impossible for residents to maintain, let alone improve their property.

ATTACHMENT 2 continued...

Ownership Market

In 1975, the average price of a single-family detached home in South Lake Tahoe was approximately $40,000, requiring an annual income of approximately $15,000 - $20,000 to qualify for purchase. Many of the households did not have the income necessary for purchase (43% of households made less than $10,000). Since then, the average price of a single-family dwelling has increased 116% to $87,018 in 1979. This compares to the average increase in household income of approximately 6% per year, or 24% between 1975 and 1979. This indicates the magnitude to which households in South Lake Tahoe are overpaying and/or being priced out for prime housing in the community. With inflation racing ahead of household income increases, the rapidly increasing costs of financing, new construction and rehabilitation, it is estimated that households earning $25,000 in 1980 will be paying more than 25% of their monthly income for shelter (TRPA).

Rental Market

In 1974, there were approximately 4,300 households overpaying for their rental units in the South Shore area (the bulk of which is the City of South Lake Tahoe and the unincorporated parts of the El Dorado County portion of the Basin). Households with annual incomes less than $10,000 were experiencing various degrees of overpayment for units renting less that $205 per month. This represents approximately 68% of the total South Shore rental households.

This overpayment situation in the rental market is, for the most part, due to several factors: a) lower wage service employees; b) inadequate supply of affordable rental units; c) artificial inflation of rental prices caused by increasing demand and decreasing supply. The end product of this overpayment situation will, in all likelihood, result in a severe reduction in the standard of living for families who rent.

Furthermore, it could require the doubling or tripling up of households or individuals in a single-family dwelling in order that they maintain their present standard of living.

Given the following conditions:

a) inability to develop multi-family dwelling units which are mostly for rentals,

b) the continued steady growth of the population,

c) the continued demand for tourist housing,

...it would be reasonable to assume that the overpayment situation in 1974 could have only been compounded in the course of four years.

ATTACHMENT 2 continued...

Housing Policies

The housing policies of the City of South Lake Tahoe respond to the identified housing problems and needs of the community. The following will be the recommended policies of the Housing Element update. They are based upon those of the adopted Housing Element of the City's General Plan, the recommendations of the "20-20" Committee and the work of the planning staff in preparing the Housing Element update.

Problem: Housing Supply

Policy 1. Give first priority to the housing needs of the existing permanent year-round residents of South Lake Tahoe and those working in the Planning Area.

Policy 2. Provide housing opportunities in both ownership and rental market by maintaining a BALANCE of rental units to owned units within the City.

Policy 3. Provide a full range of housing opportunities for the permanent year-round residents within close proximity to employment and other needed public services and facilities.

Policy 4. Provide a variety of housing opportunities that would accommodate the particular needs of the seasonal residents and non-residents and that would decrease the commuting distance between such housing and the place of emmployment or the frequented recreational areas/establishments.

Policy 5. Monitor the housing stock to determine periods of short supply and to identify the housing type that may appear in deficit.

Problem: Unsafe, Unsanitary Housing

Policy 6. Insure that all housing units have adequate plumbing and heating equipment.

Policy 7. Eliminate overcrowded conditions by 1) ensuring that housing occupancy not exceed an average of one (1) person per room, and 2) by encouraging the expansion of sewer treatment plant to meet the current rate of growth.

Policy 8. Insure that housing units are free of infestation.

Policy 9. Rehabilitate or demolish unsafe, unsanitary housing units.

ATTACHMENT 2 continued...

Policy 10. Give first priority to the more disadvantaged households, i.e. low-moderate income households, the elderly, the handicapped, newly formed households, etc., in rehabilitation programming.

Policy 11. Establish an on-going, self-supporting, voluntary rehabilitation program requiring homeowner participation not dependent on general funds.

Policy 12. Continually monitor housing needs for repair/rehabilitation.

Problem: Accessibility of Housing

Policy 13. Insure that free choice in housing opportunities is available to all economic and social segments of the community.

Policy 14. Assist in resolving conflicts between landlords and tenants in order to maintain and expand housing opportunities.

Policy 15. Encourage the enforcement of state and federal fair housing laws.

Problem: New Housing Construction

Policy 16. Support and provide incentives for the construction of new housing affordable to low/moderate income households.

Policy 17. Develop a system that would incorporate housing cost, location, and a mix of housing types to aide in decision making on specific proposals.

Policy 18. Provide incentives that would allow the market to address the particular needs of the various financial classes within the community.

Policy 19. Support the creation of new residential uses in or around commercial areas where such uses benefit both.

Problem: Housing Affordability

Policy 20. Encourage housing that is affordable to the low/moderate income households.

Policy 21. Encourage the use of innovative financing techniques by lending institutions and property owners that would loosen the rigidity of the housing market for potential buyers and renters.

Policy 22. Encourage the construction of multi-family dwelling units in order to relieve the critical shortage of available rental housing.

Policy 23. Consider and approve condominium conversions at a time that such conversion will NOT have adverse effect on the rental housing stock.

Policy 24. Protect and assist all residents of rental units proposed for conversion in meeting their housing needs.

Problem: Neighborhood Preservation

Policy 25. Maintain the low density character of existing single-family areas in compliance with neighborhood plans.

Policy 26. Aide in the prevention of neighborhood blight.

Policy 27. Create and maintain an acceptable balance between:

1) residential and commercial uses.
2) long-term resident housing and short-term seasonal resident/tourist housing.
3) family housing and retirement/second home housing.

Policy 28. Provide for a balance mixture of single-family dwellings and multi-family dwellings in order that the low density character of the South Tahoe neighborhoods is preserved.

Policy 29. Provide adequate emergency services, i.e. fire protection, ambulance, police, etc., for all South Lake Tahoe neighborhoods.

Policy 30. Design a system that would efficiently deal with the storm water and drainage problems in all South Lake Tahoe neighborhoods.

Policy 31. Ensure that low and moderate income housing are NOT concentrated in any one neighborhood within the City.

Problem: Special Housing Needs

Policy 32. Give high priority in housing assistance to the more disadvantaged households, i.e. low/moderate income households, the elderly, the handicapped, single-parent families, families with small children, etc.

Policy 33. Support and promote the development and location of housing for the elderly and the handicapped that would encourage independence and minimize isolation.

Problem: **Inadequate Public Facilities and Utilities**

Policy 34. Support the maintenance of adequate public facilities and utilities to ensure that the demands of the neighborhoods are met.

Policy 35. Promote and support the implementation of underground utilities for ALL South Lake Tahoe neighborhoods.

Problem: **Codes, Standards and Development Processing**

Policy 36. Maintain the height and bulk of residential structures in harmony with their location, zoning and planning considerations.

Policy 37. Maintain a firm and responsible control over the architectural design and location of dwellings in order to ensure that such developments are aesthetically pleasing to the area where they are implemented.

Policy 38. Design a system that would reduce the review time for residential projects as much as possible without adverse effect on efficiency.

Problem: **Coordination of Local, State and Federal Housing Programs**

Policy 39. Encourage and support the construction of low/moderate income housing financed through Government Housing Assistance Programs where necessary.

Policy 40. Explore into the various housing assistance programs at the state and federal level that may be utilized to provide more housing.

Policy 41. Promote a healthful and cooperative relationship between the public and private sectors for the provision and/or rehabilitation of housing within the South Lake Tahoe planning area.

Housing Programs

In 1976, a citizens group dubbed the "20-20" Committee was formed to identify concerns and set goals for the future of South Lake Tahoe. After investigating the housing situation within the community, the committee recommended the following programs. These programs will form the basis for the City's Comprehensive Housing Program to be detailed within the element itself. They are centered around the creation of a housing advisory committee or in more common terms, a local public housing authority.

ATTACHMENT 2 continued...

The creation of a housing advisory committee to develop and administer the community's housing needs in compliance with the state and federal requirements.

The development of specific plans for housing the city's more disadvantaged groups, i.e. elderly, handicapped, low-income, etc.

The encouragement of neighborhood planning and improvement programs in residential areas requiring remedial treatment.

The establishment of a technical aid program for use by residents seeking advice on the many federal and state programs available.

The conduction of a detailed study of those areas with potential for a concentration of problems related to housing, whether physical or social, and those areas in which housing and conditions are unique.

The identification of social considerations, particularly those groups with special housing problems and needs such as family size, financial problems, etc.

The review of all public codes, policies, and ordinances to include recommendations concerning those items which appear to present problems.

The encouragement of the public, as individuals and organizations, to participate in the formation of project goals, program proposals, and implementation procedures.

The proposal of a feasibility program for updating and re-evaluating the housing element, to include strategies for the detection and prevention of future problems relating to housing.

The maintenance of housing quality through strict enforcement of codes and competency requirements for all trades.

Excerpted from Dillingham Development Company's Market Study for Low-Income Housing, March 1976 (p. 14)

"The analysis next must reflect the fact that the total housing supply is not available for permanent residents. A significant percentage of the units are for seasonal use only. Table 4 shows data from the 1970 U.S. Census and the 1974 Caltrans Study on the distribution of supply to seasonal and permanent occupants. Using these data, estimates are made for the amount of total supply that will be available for permanent occupants. Historically, approximately 40% of all housing units (excluding motels) were utilized by non-resident persons either as owners, usually of a recreational second home, or as short-term vacation renters (less than 30 days). The table also shows a trend toward a greater percentage of units being made available for long-term occupancies, particularly in California." (Emphasis added.)

ATTACHMENT 2 continued...

Excerpted from letter May 21, 1979 to City of South Lake Tahoe Planning Department from Mickey Madden, Property Manager of Gardener Helms Real Estate, South Lake Tahoe, and member of Property Management Division, California Association of Realtors:

> "Also to be considered, is the conversion of houses from summer homes and vacation rentals to the permanent rental market. Around 1974, only 61.8% of the houses that could be available were actually on the market. That figure has increased to about 72%. More and more owners are placing their properties on the rental market for the first time, pushing the availability figure higher each year."

ATTACHMENT 2 continued..

SOUTH TAHOE BASIN
COMPARATIVE HOUSING STATISTICS
UNITS AVAILABLE FOR LONG-TERM OCCUPANCIES

	1970 (1)		1974 (2)	
DESCRIPTION	DOUGLAS COUNTY	EL DORADO COUNTY	DOUGLAS COUNTY	EL DORADO COUNTY
Total Housing Units	2018	11,305	2740	13,980
Made Up of:				
Vacant for sale	20	141	N/A	N/A
Vacant for rent	120	833	N/A	N/A
Vacant seasonal un-available	725	4,976	N/A	N/A
Sub-Total Vacant	865	5,950	1160	6,370
Occupied Units	1153	5,355	1580	7,610
TOTAL	2018	11,305	2740	13,980

PERCENTAGE DISTRIBUTION

Vacant for sale	.9	1.2	.9		1.0	
Vacant for rent	5.9	7.4	5.8		6.4	
Sub-Total	6.8	8.6	6.7	(3)	7.4	(3)
Occupied	57.3	47.4	57.7		54.4	
Available Units	64.1	56.0	64.4		61.8	
Vacant Seasonal and Unavailable	35.9	44.0	35.6		38.2	
	100.0	100.0	100.0		100.0	

PROJECTION OF AVAILABLE UNITS

		1970	1974	1975	1976	1977	1978
El Dorado County	(4)	56.0	61.8	63.0	64.2	65.4	66.6
Douglas County	(5)	64.1	64.4	64.4	64.5	64.5	64.6

(1) Source: 1970 U.S. Census (April 1970).

(2) Source: Caltrans Study (March 1974).

(3) The decrease in vacant units as a percent of total from 1970 to 1974 was distributed prorata to each category.

(4) Projection of the available units for El Dorado County was based on a straight extrapolation of increases from 1970 to 1974, i.e., (61.8 - 56.0) - 5 =1.2% per year.

(5) Projection of the available units for El Dorado County was based on a straight line extrapolation of increases from 1970 to 1974, i.e., (64.4 - 64.1) - 5 = .06 or .1 each two years.

From Dillingham Development Co.'s
Market Study for Low-Income Housing, March 1976

ATTACHMENT 2 continued...

EXISTING HOMES SOLD IN SOUTH LAKE TAHOE

July - December 1975

PRICE RANGE	1 & 2 Bdrms.	3 Bdrms.	4+ Bdrms.	TOTAL UNITS	%	Cum. %
$10-19,999	1	0	0	1	1.4	1.4
$20-29,999	8	4	1	13	18.6	20.0
$30-39,999	7	16	2	25	35.7	55.7
$40-49,999	4	15	1	20	28.6	84.3
$50-59,999	2	3	2	7	10.0	94.3
$60-69,999	0	0	1	1	1.4	95.7
$70-79,999	0	1	1	2	2.9	98.6
$80-89,999	0	1	0	1	1.4	100.0
TOTAL	22	40	8	70		
Avg. Price	$34,009	$41,970	$49,419			

TOTAL UNITS SOLD: 70

Avg. Price (All Sizes): $40,319
Median Price (All Sizes) $38,599

July - December 1979

PRICE RANGE	1 & 2 Bdrms.	3 Bdrms.	4+ Bdrms.	TOTAL UNITS	%	Cum. %
$40-49,999	1	0	0	1	2.1	2.1
$50-59,999	3	0	0	3	6.2	8.3
$60-69,999	5	0	0	5	10.4	18.7
$70-79,999	9	5	1	15	31.3	50.0
$80-89,999	5	4	0	9	18.8	68.8
$90-99,999	1	3	1	5	10.4	79.2
$100-199,999	1	4	5	10	20.8	100.0
TOTAL	25	16	7	48		
Avg. Price	$73,745	$93,709	$119,129			

TOTAL UNITS SOLD: 48
Avg. Price (all sizes) $87,018 115.8% Inc. over 1975
Median Price (all sizes) $80,000 107.3% Inc. over 1975

ATTACHMENT 3

PREAMBLE TO MEMORANDUM OF UNDERSTANDING

The governing bodies of the City of South Lake Tahoe, El Dorado County and the South Tahoe Public Utility District enter into this Memorandum of Understanding (MOU) in recognition of their common interest in, and responsibilities for, maintaining the special qualities that make Lake Tahoe and its surrounding basin lands a unique resource of local, regional, and national importance. The bodies jointly recognize that local governments and service providers play a major role in determining the future of the basin: that the decisions made and the actions taken by each have a significant effect on both the natural and man-made environment of the area. And, further, that local agency cooperation is paramount in both the development and the achievement of a plan for the mitigation of the effects of human actions and natural forces on the basin's environment. It is so as to maintain the balance of these environmental elements in such a way that neither is protected at the expense of the other, and so that the matchless qualities of the total environment are maintained and improved, that this plan is proposed.

While such a plan is proposed to be developed primarily in response to the DEIS prepared for proposed improvements to wastewater facilities in the South Tahoe basin, it is understood by the parties to this MOU that the DEIS has also served as the stimulus for a much broader plan for long-range and permanent improvements in the total environment of the entire Tahoe basin.

It is the intent of the parties to this MOU to coordinate and expand their efforts and actions to that end.

I. LEVEL OF EXISTING PLANS, PROGRAMS, AND REGULATIONS

A. City of South Lake Tahoe

1. General

The City of South Lake Tahoe, located at the south end of Lake Tahoe, was incorporated in 1965 with a population of 14,427 persons. The city limits encompass an area of 17.4 square miles, 10.2 of which are land area and 7.2 square miles of which are in water area in Lake Tahoe. The city operates under the Council-Manager form of government and is maintained by eleven operating departments: Police, Fire, Public Works, Engineering, Finance, Parks, Planning, Building and Safety, Personnel, Clerk, Attorney and Administration. The offices of City Treasurer and City Clerk are elective. The combined years of public service of the city's department heads, including the City Manager, is 194, or an average of slightly over 16-years each. The city employs approximately 200 persons. The 1979-80 annual budget for city operations and capital outlay is $11,414,300. The current population is 21,700.

ATTACHMENT 3 continued. . .

2. Adopted General Plan

All required (state mandated) elements developed and adopted during the period 1971 to 1974. Adopted optional elements are: Community Goals (Dec. 1970), Public Facilities (March, 1971) and Recreation (August, 1972).

3. General Plan Update

The city is currently updating the General Plan. In process are revisions of these elements: (a) Transportation, (b) Housing and (c) Human Services. Complete revision of mandated elements is scheduled for May, 1981; and of optional elements by August, 1981.

4. Zoning - Chapter 32 of the City Code

Basic ordinance adopted March, 1966. Revised January 1, 1974 so as to conform closely with the Land Use Ordinance of the Tahoe Regional Planning Commission. In addition to the customary zone district classifications, special features contained in this ordinance include zoning districts for: Open Water (OW), Open Space (OS), Public Service (P-S), Transportation Corridor (TRC), Planned Development (P-D), Airport Approach (A-A), Flood Plain (F-P) and Higher Heights (H-H). The city's Zoning Enforcement Officer has citation authority for enforcement of both the zoning ordinance and the sign ordinance.

5. Sign Ordinance - Chapter 25 of the Municipal Code

Originally adopted in 1967, this ordinance was completely revised in 1976 and again amended in 1978. These regulations have successfully eliminated the myriad of billboards, flashing and moving signs, banners and the like which prevailed when the City was incorporated and have resulted in fewer and smaller signs, built at lower level, generally not exceeding 14 feet in height.

6. Subdivision Ordinance - Chapter 27 of the City Code

a. Basic ordinance adopted April, 1966. Also regulated are minor subdivisions (lot splits).

b. Condominium Conversions

Presently prohibited under city codes. This prohibition is based on a shortage of rental dwelling units in the city and surrounding area.

7. Architectural Review - Section 32-62 of City Code

This section provides that three members of the City Planning Commission serve as the members of the City's Architectural Review Committee. This committee meets weekly and reviews all proposals for new and modified construction projects, including buildings, signs, parking and landscaping and other external features.

8. Uniform Building Codes

The city has adopted each of the Unform Building Codes with the only modifications being generally limited to those made necessary or desirable due to climate, weather and elevation.

9. Energy Conservation

a. The city has adopted and enforces the Energy Conservation Regulations of the State Energy Commission.

b. The city has appointed a Citizen's Committee to conduct an energy audit of all public buildings. The purpose of the audit is energy audit of all public buildings. Technical assistance is being provided to this committee by city staff.

10. Open Space and Parklands Acquisition

In 1977, the city established a fund for future acquisition of open space and parklands. The city appropriates 5% of the city's annual revenues for this purpose. To date, the fund has a balance of approximately $192,000.

In 1979, the city appointed citizen members to the Open Space and Parklands Commission. The commission has developed plans and priorities for an acquisition program and it is expected that this program will be implemented in 1980.

11. Tahoe Basin Association of Governments

The city participates with the legislative bodies of El Dorado and Placer Counties in California and Carson City, Washoe and Douglas Counties in Nevada in cooperative planning and implementation of programs on a basin-wide level. This organization, formed through joint powers agreement and known formally as the Tahoe Basin Association of Governments (TBAG), is currently developing a solid waste management plan for the basin; this study is being funded through a grant received from the U.S. Environmental Protection Agency (EPA).

12. Transportation Planning and Programs

a. Public Transportation

The city maintains a 24 hour/365 days/year bus system and is updating the operation of this system through the acquisition of four new buses, modifying procedures, improving facilities and coordinating with private para-transit programs (ski buses, casino/hotel dial-a-ride programs, etc.).

b. Bicycle Trails

The city and Caltrans have been cooperating in the development of bicycle trails throughout the city in accordance with a bicycle trail plan adopted by the city in 1977. To date, the program has resulted in approximately 15 miles of bicycle trails being completed.

c. Transportation Planning

In addition to the update of the Transportation Element of the General

ATTACHMENT 3 continued. . .

Plan (mentioned above), the City, in 1978 joined with El Dorado and Douglas Counties, Caltrans and the Nevada Department of Transportation in financing a study of the Highway 50 Transportation Corridor. This $45,000 consultant (JHK Associates) study resulted in recommendations for both long and short term solutions to congestion in this corridor. Upon completion, the study was officially endorsed by the governing bodies of each of the local entities.

d. Joint Powers Authority for Transportation

The City Council of the City of South Lake Tahoe, the Board of Supervisors of El Dorado County and the Board of Commissioners of Douglas County, Nevada have prepared and adopted in principle a Joint Powers Agreement (JPA) for the purpose of coordinating long and short term traffic improvements in the south shore area using the JHK study as a base.

e. Airport

The city is cooperating with the County of El Dorado in the development of an Airport Master Plan (AMP) and Airport Noise Control and Land Use Compatibility (ANCLUC) Study being prepared by a consultant team. The city has continuously supported the operation of the airport as an alternative mode of transportation to and from the basin.

f. Waterborne Transit

The city encourages, and has recently approved a permit for a waterborne commuter/visitor service. There are also several other waterborne excursion services operating under city approvals and permits.

13. Building Allocation Systems

Since 1977, the City of South Lake Tahoe and El Dorado County have jointly agreed upon and administered a system for the issuance of a limited number of building permits. In 1977 and 1978, a "first-come, first-served" system was used to issue both commercial and residential permits. In 1979, due to a further limitation in the number of permits available, a "random selection" drawing system which was considered to be the most equitable and legally sound system, was utilized. In 1979, 253 residential allocations were distributed. (Residential permits are restricted to single-family detached dwellings only, no multiple-dwellings are permitted under California Tahoe Regional Planning Agency regulations.) In 1980, a random selection drawing system will again be utilized for distributing a number of residential allocations similar to that of 1979.

14. Transfer of Sewer Units

Currently in effect in the city is an ordinance (Ordinance #520) which will permit the transfer of sewer units from one location to another under specified conditions and procedures.

15. Tahoe County Formation

The City Council, with the advice and assistance of a citizen's Tahoe County

Formation Committee, has been studying the possibility of forming a separate county comprised of the basin portion of El Dorado County. In 1979, a $19,000 consultant study (By Arther D. Little Co.) was prepared to determine the feasibility of such a new county. Following receipt of the report, the City Council directed the citizens' committee to begin circulating petitions; this is the next step in the county formation process. If the new county is formed, it is the intent that the City of South Lake Tahoe would be disincorporated and that there would then be a single local governmental entity in this portion of the basin.

16. Housing

As a result of data and information obtained in developing the update of the Housing Element of the General Plan, the City Council has directed the staff of the Community Development Department to investigate the possible application and effectiveness of a formal Housing Authority in the City.

17. Public Services

a. Human Services

The city and County of El Dorado jointly sponsor and support a wide variety of human services for the elderly, the youth, the disadvantaged and the general public. In the 1980-81 budget, the city has allocated a total of $50,650 for such services.

b. Animal Control

In conjunction with the County of El Dorado, a well-organized program of animal control has been in operation in the Tahoe Basin for many years. The city portion of costs for this program in the current fiscal year is $36,000.

B. County of El Dorado

1. General

El Dorado County is located in North Central California between the Sacramento Metropolitan Area and the Nevada State Line at Lake Tahoe. The county is 430 miles north of Los Angeles, 105 miles northeast of San Francisco and 60 miles southwest of Reno, Nevada. There are two incorporated cities in El Dorado County--Placerville, incorporated in 1854 and South Lake Tahoe, incorporated in 1965. El Dorado County has 1,713 square miles, 54% in public ownership.

The current population of the county is 83,200 (July 1, 1979). Within the Tahoe Basin portion of the county there are 96,887 acres of land area (151.4 square miles). The population in the unincorporated area of the basin in 1978 was officially estimated at 5,680 persons.

ATTACHMENT 3 continued. . .

2. Adopted General Plan

All required elements were adopted during the period 1969 to 1976. An adopted optional element is: Recreation/Bikeways.

3. General Plan Update

The county is presently updating the Land Use Element of the General Plan through a series of Area Plans. The other elements are updared on a continuing basis.

4. Zoning

The first zoning ordinanc was adopted by the county in 1947 because of a request from residents in the Lake Tahoe area. Several residential, commercial/industrial districts have been adopted since then, including some special districts similar to those in the City of South Lake Tahoe. Zone Districts for the Lake Tahoe area are slightly different from the "Western Slope" districts and carry the prefix "T".

5. Sign Ordinance

The county has aodpted sign regulations as a part of its General Provisions Ordinance. Its controls are similar to those found in the City of South Lake Tahoe.

6. Subdivision Ordinance

a. The county presently has both a Major Land Division (Subdivision) and Minor Land Division (Parcel Map) Ordinance regulating the division of land. These ordinances have been updated several times in the past few years.

b. Condominium Conversions

These would be allowed under the Provisions of the County's Planned Unit Development Oridnance (P.U.D.). The county has not processed any applications as of this date.

7. Architectural Review

The Planning Director reviews all site plans for commercial and industrial developments. This review includes signs, parking and, optionally, landscaping and building elevations. The provisions of the P.U.D. Ordinance requrie approval by the Board of Supervisors of all of these.

8. Uniform Building Codes

The County has adopted major portions of the Uniform Building Codes.

9. Energy Conservation

The county regulates energy conservation through the provisions of the Subdivision Map Act. A citizens' committee has been formed to recommend energy conservation measures to the county staff and Board of Supervisors.

The county has created a position of energy coordinator and is now advertising to fill this position. The person in this position will be responsible for coordinating, monitoring and implementing energy conservation programs including energy audits of public buildings.

10. Open Space and Parklands Acquisition

The county uses the Subdivision Map Act for the dedication of parklands in areas where there is an entity which can manage them. The county maintains open space through the Land Conservation Act of 1965 (Williamson Act) and Timber Preserve Zoning (TPZ). Approximately 69% of the county is in federal or state ownership or in the Williamson Act or Timber Preserve.

11. Tahoe Basin Association of Governments

The county participated with the legislative bodies of the City of South Lake Tahoe and Placer County in California and Carson City, Washoe and Douglas Counties in Nevada, in cooperative planning and implementation of programs on a basin-wide level. This organization, formed through joint powers agreement and known formally as the Tahoe Basin Association of Governments (TBAG), is currently developing a solid waste management plan for the basin; this study is being funded through a grant received from the U.S. Environmental Protection Agency (EPA).

Membership in TBAG is voluntary and it has no power to enforce laws, ordinances or regulations. Rather, its purpose is to make findings, studies and recommendations concerning issues of mutual concern and to aid in communication between the various governmental agencies.

12. Transportation Planning and Programs

a. Public Transportation

The county operates a public transit system that is used primarily by the elderly (Dial-a-Ride).

ATTACHMENT 3 continued. . .

b. Bicycle Trails

The county has adopted a Bikeways Master Plan as a part of the county General Plan. The county is now in the process of setting up a committee for implementation of bike trials. The first priority is for areas around public schools.

c. Transportation Planning

In addition to the update of the Transportation Element of the General Plan (mentioned above), the county, in 1978 joined with the City of South Lake Tahoe and Douglas County, Nevada, Caltrans and the Nevada Department of Transportation in financing a study of the Highway 50 Transportation Corridor. This $45,000 consultant (JHK and Associates) study resulted in recommendations for both long and short term solutions to congestion in this corridor. Upon completion, the study was officially endorsed by the governing bodies of each of the local entities.

d. Airport

The county is sponsoring an AMP and ANCLUC study by a consultant team. Local share of this $150,000 study is $30,000; with the remaining $120,000 being funded by federal agencies.

e. Joint Powers Authority for Transportation

The City Council of the City of South Lake Tahoe, the Board of Supervisors of El Dorado County and the Board of Commissioners of Douglas County, Nevada, have prepared and adopted in principle a Joint Powers Agreement (JPA) for the purpose of coordinating long and short term traffic improvements in the south shore area, using the JHK study as a base.

13. Building Allocation System

Since 1977, the City of South Lake Tahoe and El Dorado County have jointly agreed upon and administered a system for the issuance of a limited number of building permits. In 1977 and 1978, a "first-come, first-served" system was used to issue both commercial and residential permits. In 1979, due to a further limitation in the number of permits available, a "random selection" drawing system, was utilized. In 1979, 253 residential allocations were distributed. (Residential permits are restricted to single-family detached dwellings only, no multiple-dwellings are permitted under California Tahoe Regional Planning Agency regulations.) In 1980, a random selection drawing system will again be utilized for distributing a number of residential allocations similar to that of 1979.

14. Transfer of Sewer Units

The county is considering an ordinance which would allow the transfer of sewer permits from less suitable building sites to the best sites.

ATTACHMENT 3 continued. . .

15. Tahoe County Formation

The county has taken no official position on this proposal; however, the board does support the county formation process being pursued.

16. Housing

The county has an active Housing Advisory Committee as required by the Housing Element to the General Plan. The element requires the formation of a Housing Information Clearinghouse operated by the Community Programs Department of the county. They are also directed to investigate Federal and State funding sources for law and moderate income housing.

17. Public Services

a. Human Services

The County and the City of South Lake Tahoe jointly sponsor and support a side variety of human services for the elderly, the youth, the disadvantaged and the general public. In the 1980-81 budget, the county has allocated a total of $136,000 for such services.

b. Animal Control

In conjunction with the City of South Lake Tahoe, a well organized program of animal control has been in operation in the Tahoe Basin for many years. The county portion of costs for this program in the current fiscal year in $81,000.

C. South Tahoe Public Utility District

1. General

The South Tahoe Public Utility District was organized in 1951 under the provisions of the California Public Utility Code. The utility district has a duty to provide sewer service to the property within its geographic service area. The STPUD is responsible for wastewater disposal and sewage treatment of 25,000 acres around the south shore of Lake Tahoe between Emerald Bay and the California/Nevada state line in El Dorado County. The District also provides domestic water supply for 40% of the area.

2. Collection Treatment and Export of Wastewater

During the past ten-year period, the utility district has protected the lake from the impact of the disposal of wastewater through the collection, treatment and export outside of the basin of the wastewater generated within the district's service area. Approximately $6.1 million in federal grants and appropriations were made available for the construction of the treatment and disposal system; $1.2 million was made available to the district from a state loan program. The district expended approximately $10.7 million as the local share of the construction costs. During the past ten-year period, the district has expended over $20 million in operation and maintenance of the sewer system. The utility district is now expending in excess of $4 million per year for operation and maintenance of the sewer system.

3. Transfer of Sewer Units

The utility district is working with the city and county to identify utility district ordinances necessary to allow the transfer of sewer permits from less suitable building sites to the best sites.

II. PROPOSED PLANS, PROGRAMS AND REGULATIONS

A. General

Most of the plans, programs and regulations described below will necessarily be the subject of action on the part of all three parties to this Memorandum of Understanding. However, it is recognized that in some instances, one of the parties may have the lead or even sole responsibility for implementation of a particular proposal; and further, that other agencies not a party to this Memorandum of Understanding may also be involved in the carrying out of one or more of the efforts described herein.

B. Proposal for Future Action - All Signatories as Designated

1. Coordination of Plans and Programs

a. Tahoe County

Efforts for the formation of a single governmental entity in the Tahoe Basin portion of El Dorado County (Tahoe County) will continue and be vigorously pursued.

Estimated time for completion: two years.
Responsible agencies: City of South Lake Tahoe, El Dorado County and
South Tahoe Public Utility District

b. Area Planning Commission

The City of South Lake Tahoe and the County of El Dorado will consider the formation of an Area Planning Commission to coordinate planning, zoning, sign and architectual review regulations and procedures of the city and county in the basin.

Estimated time for initiation: July, 1980.
Responsible agencies: City of South Lake Tahoe and El Dorado County

c. Tahoe Basin Association of Governments (TBAG)

The City of South Lake Tahoe and County of El Dorado will continue to support and strengthen the Tahoe Basin Association of Governments in all areas involving regional planning and programs.

Timing: Continuous.

2. Transportation

a. Traffic and Circulation

The City of South Lake Tahoe and the County of El Dorado will continue to support the recommendations of the JHK Associates Highway 50 Corridor Study, the Joint Powers Authority, implementation of the bicycle trail plan and completion of the Loop Road. The General Plan update will be completed.

Timing: Continuous, except that General Plan update will be completed in 1980.
Responsible agencies: City of South Lake Tahoe and El Dorado County.

b. Transit

Improve operations and equipment in the city's bus system, provide scrip program to encourage visitor and commuter use of buses, develop bus pass program with employers for use by employees, expand ski bus routes and cooperate with Caltrans in Operation Ski-Lift, work with U.S. Forest Service and State Parks Department to provide bus service to beaches and parks, provide review and approval through Certificate of Convenience and Necessity ordinance of para-transit programs to encourage private industry to augment and supplement public transit.

Timing: Continuous.
Responsible agencies: City of South Lake Tahoe and El Dorado County.

c. Traffic

Reduce traffic through the elimination of delivery by truck of chemicals and supplies associated with the operation of AWT facilities.

Timing: 1983 or 1984 completion of wastewater treatment plant expansion.
Responible agencies: South Tahoe Public Utility District

3. Preserve Environmentally Sensitive Sites

a. Planning

Establish criteria for and identification of environmentally sensitive sites. Investigate all programs such as grants, incentives and regulations which may be employed for the preservation or ecologically sound development (use) of such sites.

Timing: Initiate in 1980. Maintain continuous program.
Responsible agencies: City of South Lake Tahoe and El Dorado County.

b. Programs

Develop programs for reducing or eliminating the affects or amounts of developing in environmentally sensitive areas through: transfer of development rights (TDR), incentive zoning, density bonuses, acquisition in fee or less than fee title, implementation and expansion of the city's parklands and open space acquisition program. Develop programs for removal and/or compensation of outstanding sewer assessment on lands in environmentally sensitive areas that are not allowed to be developed.

Timing: Initiate in 1980 and maintain continuously.
Responsible agencies: City of South Lake Tahoe, El Dorado County and South Tahoe Public Utility District

c. Regulations

Utilization of Best Management Practices manual, adoption of a "point and criteria" system for evaluating proposed new development projects; adoption by the County of El Dorado and the South Tahoe Public Utility District of ordinances similar to the city's parklands and open space ordinance.

Timing: Initiate in 1980 and maintain continuously.
Responsible agencies: City of South Lake Tahoe, County of El Dorado and South Tahoe Public Utility District.

4. Air Quality

Through joint powers authority, the City of South Lake Tahoe and County of El Dorado will develop and enforce programs and regulations which will implement the Lake Tahoe Basin Air Pollution Control Plan and the Air Quality Non-Attainment Plan.

Timing: Initiate in 1980 and maintain continuously.
Responsible agencies: City of South Lake Tahoe and County of El Dorado.

5. Water Quality (See also #3. Preserve Environmentally Sensitive Sites)

The utility district will, after completion of plant expansion, control the number of new sewer connections permitted each year to assure that the new treatment facilities will not be overloaded during the ten-year life of the project.

The District will reserve treatment and disposal capacity for the sole purpose of retreatment of wastewater diverted to the emergency holding pond. The district will continue to monitor and report on flows and quality of treated wastewater.

Timing: Continuous upon completion of new sewage treatment facilities (STPUD).
Responsible agencies: South Tahoe Public Utility District, City of South Lake Tahoe and County of El Dorado.

6. Noise

The City of South Lake Tahoe and County of El Dorado will establish regulations and ordinances which will implement the Airport Master Plan and ANCLUC study. Noise elements of city and county General Plans will be updated in accord with the recommendations of those reports and requirements of the State Planning Law. Noise levels at the wastewater treatment plant will be reduced through abandonment of advanced wastewater treatment facilities and through reduced truck deliveries of chemicals and supplies.

Timing: City and County General Plan Noise Elements will be updated upon completion of the AMP and ANCLUC study. Estimated early 1981. Noise ordinances will be prepared by the city and county in 1980. Noise levels at the STPUD plant will be reduced through traffic reduction in 1983 or 1984 upon completion of wastewater treatment plant expansion.
Responsible agencies: City of South Lake Tahoe, County of El Dorado and South Tahoe Public Utility District.

7. Biological Resources (See also #3. Preserve Environmentally Sensitive Sites)

Continuation of program to collect, treat and dispose outside of Tahoe basin all wastewaters. Develop pilot program for the determination of the feasibility of in-basin reuse of highly treated wastewater to enhance biological resources.

Timing: Export of treated wastewater is a continuous program to be developed by 1983.
Responsible agencies: South Tahoe Public Utility District.

8. Water Conservation

Develop a program to encourage water conservation. Maintain monitoring program of water production and groundwater conditions. Expand program for the reduction of infiltration/inflow into sewer collection system.

Timing: Continuous.
Responsible agencies: South Tahoe Public Utility District, City of South Lake Tahoe and County of El Dorado.

9. Energy

Continue monitoring energy useage in public buildings, use of building codes; explore methods for retrofitting and application of innovative devices and alternate sources. Reduce energy consumption for treatment of wastewater through abandonment of AWT facilities.

Timing: 1983 or 1984 completion of wastewater treatment plant expansion (STPUD). Continuous for City of South Lake Tahoe and County of El Dorado.
Responsible agencies: South Tahoe Public Utility District.

10. Visual Resources (See also #1(b) Area Planning Commission)

Improve visual appearance of local wastewater treatment and water supply

ATTACHMENT 3 continued. . .

facilities.

Timing: 1983 or 1984 completion of wastewater treatment plant expansion.
Responsible agencies: South Tahoe Public Utility District.

11. Land Use

a. Planning

The City of South Lake Tahoe and County of El Dorado will continue the update and coordination of their respective General Plans.

Timing: Currently underway. Completion of all elements - midyear, 1981.
Responsible agencies: City of South Lake Tahoe and County of El Dorado.

b. Programs

The City of South Lake Tahoe and County of El Dorado will develop programs for the provision of affordable housing, neighborhoods rehabilitation, redevelopment, urban design, public safety and human needs.

Timing: Continuous
Responsible agencies: City of South Lake Tahoe and County of El Dorado.

c. Regulations

All signatories to this statement will develop, implement and enforce regulations which will direct growth and human activities in harmony with the total environment. Such will include, but not be limited to: extension of the city's sign ordinance, architectural review procedures and land acquisition program to the unincorporated area of the county, consideration of redevelopment and/or housing authorities, neighborhood rehabilitation programs and implementaiton of urban design studies.

Timing: Initiate in 1980 and maintain continuous progress.
Responsible agencies: City of South Lake Tahoe, County of El Dorado and South Tahoe Public Utility District.

12. Monitoring and Measurements

The city, county and public utility district will jointly endeavor to develop a system for measuring the performance of mitigation measures set forth herein. We will also monitor constantly the achievement of these performance standards to evaluate changes occurring from the date of adoption.

The undersigned parties to this Memorandum of Understanding affix their signatures in recognition of their responsibilities for the protection and enhancement of the natural and human environment of Tahoe Basin; and with a commitment to their individual and joint efforts to carry out those responsbilities.

Mayor
City of South Lake Tahoe

Chairman
Board of Supervisors
El Dorado County

President
Board of Directors
South Tahoe Public Utilit
District

ATTACHMENT 4
JHK STUDY

FOREWORD

This report is one of a set of three reports prepared for this Highway 50 Corridor Study in the South Lake Tahoe Area. The three documents, each under separate cover, are as follows:

SUMMARY REPORT
FINAL REPORT
APPENDICES

Previous studies and other resource documents pertaining to the Highway 50 Corridor study are referenced in Appendix A, and are available at the offices of the Tahoe Regional Planning Agency or the respective source agencies.

CONTENTS

	Page
BACKGROUND	1
CORRIDOR TRAVEL CHARACTERISTICS	3
EVALUATION OF ALTERNATIVES	6
SHORT-RANGE TRANSPORTATION IMPROVEMENTS	9
LONG-RANGE TRANSPORTATION IMPROVEMENTS	14
ORGANIZATION	19
CONCLUSIONS	19

SUMMARY

The transportation recommendations summarized here address the problem of traffic congestion along Highway 50 in the South Lake Tahoe Area. They are derived from an objective analysis of the problem, and an evaluation of the potential solutions. Specific proposals are presented for short-range improvements (1-5 years) and an overall improvement strategy presented for longer range development.

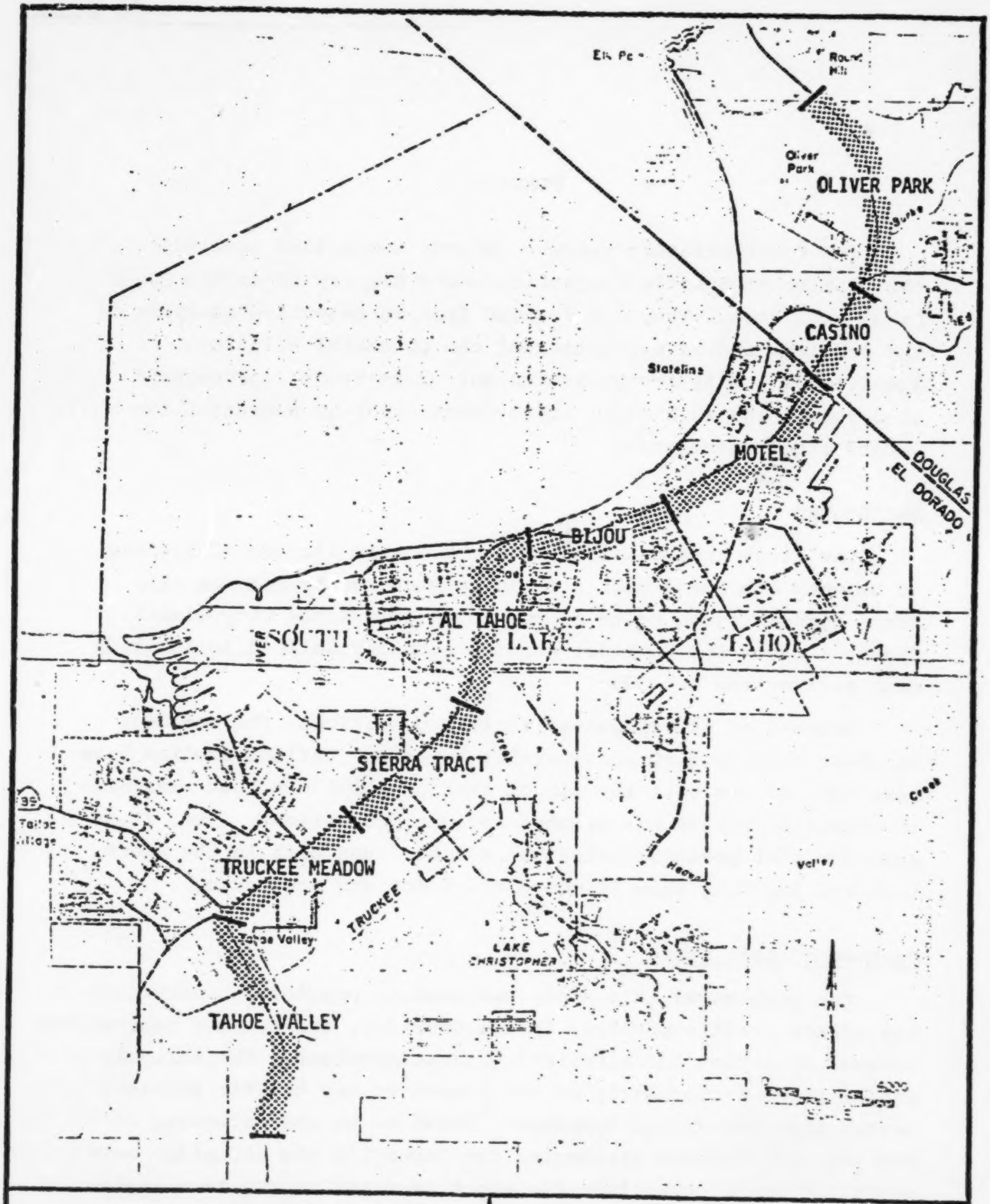
BACKGROUND

The study area consists of the 8.5 mile stretch of Highway 50 between the Round Hill area in Douglas County and the Lake Tahoe airport, just south of the South Lake Tahoe City limits. Figure 1 shows the Corridor and the sections defined to identify each part of the Corridor.

Because of its congested traffic conditions, the Corridor has been the focus of considerable concern. Various studies have been carried out with the aim of seeking solutions, but meanwhile the traffic problem has reached serious proportions. Yet, it is apparent that positive solutions can be found both in the short term and the long term if cooperative actions are taken.

Purpose of this Study

The purpose of this study has been to provide an understanding of the traffic problems in the Corridor, and set out recommended courses of action for alleviating those problems. The analysis concentrated particularly on the causes of the traffic problems rather than the obvious symptoms. Based on an understanding of the problem, various strategies for improving the situation were identified as alternatives for short term and longer term implementation. An evaluation of the various courses of action then led to the set of findings and recommendations presented here.


Elk Pt
Round Hill
Oliver Park
OLIVER PARK
CASINO
Stateline
MOTEL
DOUGLAS
EL DORADO
BIJOU
AL TAHOE
SOUTH LAKE TAHOE
SIERRA TRACT
89
Tahoe Village
TRUCKEE MEADOW
Tahoe Valley
TRUCKEE
LAKE CHRISTOPHER
TAHOE VALLEY
Creek
Heavenly Valley
N
SCALE

HIGHWAY 50 CORRIDOR STUDY
In the
South Lake Tahoe Area

jhk & associates

Figure 1

STUDY AREA CORRIDOR

The findings and recommendations are intended to provide an overall direction for developing transportation improvements in the Corridor. They are not detailed implementation proposals, but rather guidelines for future actions. The short-range proposals provide an immediate basis for implementing improvements. Those for the long-range indicate the type of concept that should be pursued for improving transportation in the Corridor and potentially upgrading the physical attributes of the Corridor itself.

The Cooperative Nature of this Study

The study was a cooperative effort sponsored by the following agencies or entities:

City of South Lake Tahoe
County of Douglas, Nevada
County of El Dorado, California
California Department of Transportation
Nevada Department of Highways

The Tahoe Regional Planning Agency (TRPA) acted as management agency on behalf of the five sponsoring entities.

Other agencies participating by virtue of their specific jurisdictional interests in the area included the California Tahoe Regional Planning Agency (CTRPA) and the U.S. Forest Service.

The recommendations contained here were developed from an independent analysis of the existing information and of the existing ideas and expertise from previous studies. As noted at the end of this summary, the next stage is to proceed in this cooperative manner with the necessary detailed studies and design steps to make the transportation improvements become a reality.

CORRIDOR TRAVEL CHARACTERISTICS

One of the primary objectives of this study was to develop a comprehensive understanding of the traffic problem in the Corridor. An analysis was first made of the Corridor traffic characteristics, including the seasonal and daily variations and the hourly traffic patterns throughout the day. From estimates of capacity at critical points along the Corridor, it was found that traffic volumes during the summer months and on winter weekends exceed the present capacity of the highway during extended periods of the day. To provide more of an in-depth understanding of the problem, the analysis then focused on the underlying characteristics of the travelers and travel patterns that create the volumes of traffic in the Corridor. This analysis examined the following:

1. The origins and destinations of trips impacting the Corridor.
2. The types of trips being made, such as work, recreation, entertainment, etc.
3. The differences between resident and visitor travel patterns.

Summer and winter were analyzed separately and a comprehensive description of Corridor travel characteristics developed for each peak season. Examples of findings from this analysis are as follows:

- On an average summer day, 45 percent of vehicular trips in the Corridor are by visitors. The proportion is similar on winter weekends.
- Visitor travel is characterized by higher auto occupancy than resident travel. In terms of persons rather than vehicles, the proportion of visitor trips in the Corridor is 60 percent.
- The southern sections of the Corridor serve more resident trips, while the northern sections have more visitor trips. For example, at the Truckee River the traffic comprises around 50 percent resident vehicles; at Stateline, the proportion of resident vehicles is around 35 percent.

- Intra-Corridor trips, those that start and end in the Corridor, account for 67 percent of vehicular traffic in the Corridor.
- The traffic passing any point in the Corridor contains less than 5 percent of trips passing through the Corridor without stopping.
- Of the daily vehicle trips made by residents, 20 percent are for work, 10 percent for recreation, and 70 percent for other purposes such as shopping and personal business.
- Visitors make 40 percent of their trips for recreation and 60 percent for other purposes such as shopping and dining.

Another part of the analysis examined the potential for attracting the different types of trips and travelers to transit. Two significant findings were as follows:

- The present bus systems serves around 1500 riders per day. Expansion of the bus system (for example, to a service offering 15 minutes headways along the Corridor and 30 minutes to neighborhood areas) could potentially attract around 7500 transit riders per day.
- Development of frequent transit service with fast travel times along the Corridor, such as a fixed guideway system, has the potential of attracting around 25,000 passengers per day, of which about one-third would be residents.

Attracting 25,000 passengers per day to transit would have the effect of reducing auto traffic along the highway by around 14 percent; a significant proportion for an area of this size with a high orientation to auto travel.

These aggregate results provide a brief overview of the complex set of travel patterns that were analyzed. The comprehensive description of Corridor travel patterns was a major intermediate product from this study, providing information for identifying improvements and also establishing a basic set of resource data for future transportation planning work in the Corridor.

EVALUATION OF ALTERNATIVES

The analysis of the traffic in the Corridor indicated a need for immediate near term improvement actions and a commitment to a comprehensive transportation development program to meet the transportation needs of the Corridor over the next several decades.

Short-Range

For the short term, relatively low cost highway and transit strategies that could provide some relief to the problem in the immediate future were examined. The conclusion was that to effectively improve conditions in this time frame, an integrated set of highway and transit improvements should be implemented.

The highway improvements would relieve key points of congestion, and through transit priority measures would support the development of more transit service. Expanding transit in the Corridor would complement these actions by reducing auto travel, and establishing a transit intensive set of travel habits in the Corridor that could set a foundation for the longer range improvements.

Long-Range

For long-range improvements in the Corridor, five alternatives were evaluated:

1. Expanded Bus and Highway - increasing the number of lanes on Highway 50 and sharing the right-of-way between both autos and buses.
2. Busway - providing exclusive lanes on a separate right-of-way for buses.
3. Streetcar - a fixed guideway vehicle operating along the highway and sharing the right-of-way with autos for turning movements.
4. Surface Guideway - a fast line-haul fixed guideway system in an exclusive right-of-way.

5. Raised Guideway - a fast line-haul service along a raised guideway.

Each of these was evaluated, taking into account its performance characteristics, impacts, and ability to be feasibly implemented. Performance included such concerns as the degree to which the alternative could decrease traffic congestion, increase accessibility and increase transit mobility. The impacts were concerned with economic, social and environmental effects on the community as a result of making substantial changes to the transportation system in the Corridor.

The evaluation indicated that no single alternative is an obvious preferred candidate for long-range development. The expanded bus and highway alternative would increase the number of auto lanes on the highway and produce relatively less diversion to transit. As a result, it has low potential for alleviating the critical air quality problem in the area. The busway system has the ability to increase transit ridership, but its impact in the community due to additional right-of-way needs are of serious concern; and unless some form of non-polluting bus technology could be utilized, (the Corridor has an elevation of over 6,000 feet) it also would not make a major contribution to improved air quality.

The streetcar alternative, while having less patronage potential due to its lower operating speeds, does have positive impact with respect to improving air quality.

The two exclusive fixed guideway alternatives have the highest transit patronage potential, and the most ability to improve air quality. The surface guideway, however, requires additional right-of-way width throughout the Corridor, and in many sections could have significant community impacts. While the raised guideway would mitigate some of these impacts, it involves considerably higher capital cost, and would also be difficult to integrate into some portions of the Corridor.

Of greatest concern is the impact on the local community that some of the alternatives would have in certain sections. The Corridor cannot be considered as a homogeneous entity. Throughout its length there are contrasting land uses and varying activities, and the opportunities and constraints differ from one section to another. The question is how can an intensive transit system be added to the Corridor to provide transportation improvements and yet not result in negative impacts on the community?

From the evaluation work, it was apparent that the answer lies in designing the system in relation to, and in many cases in coordination with, the land use of the Corridor. This requires developing a Corridor guideway system that has sufficient flexibility to operate under different guideway modes in different parts of the Corridor.

For example, in the northern sections, the streetcar type of operation is well suited to the high visitor densities, short trips, and perceived ease of pedestrian access to the system. Along the central and southern sections, focal points tend to be more separated into clustered areas of activity, and rapid speed between them becomes more desirable. In the central sections, the system could operate on an exclusive surface guideway, with considerable emphasis being placed on urban design criteria to sensitively integrate it into the Corridor. In the southern sections, the impacts of substantially widening the highway could point to the advantages of a raised guideway. When the land acquisition and impact costs of a surface guideway system are considered, the overall costs of a raised guideway in this portion of the Corridor may well be comparable. Hence, the preferred long term improvement strategy is a single linear system along the Corridor, running on a guideway that is raised, at-grade, or at-grade shared (streetcar), depending on the section of the Corridor.

Conclusions

It was concluded from the evaluation that solutions can be found that will lead to short term and long term transportation improvements in the Corridor. With coordinated efforts and an integrated program of both highway and transit improvement actions, present day problems can be alleviated, and a basis established for developing a comprehensive long term program.

For both the short-range and long-range, the community must look to a major commitment to transit if it is to effectively solve the transportation problems in the Corridor. In the long-range this commitment should be some form of transit guideway system. The trade-off is between a busway with its lower costs, and a fixed guideway with higher costs, but significant advantages in terms of ridership potential and the ability to improve the critical air quality situation.

To be successful, a transit guideway system cannot be merely implanted in the existing highway. It must be designed for the Corridor using both transit technology and urban design criteria to insure its success both as a transportation solution, and as a positive benefit to the community. A fixed guideway system with the ability to operate under different modes as described above, has the flexibility to allow this be achieved. Its higher cost must therefore be equated with the long term community benefits of such a system; and although such benefits cannot always be converted to dollars, they are key considerations in developing a successful solution.

SHORT-RANGE TRANSPORTATION IMPROVEMENTS

The recommended short-range program aims at implementing a set of actions that can make immediate improvements to the traffic problems in the Corridor and lead towards the longer range goals. Three elements are addressed:

1. Transporation Systems Management (TSM)
2. Transit
3. Circulation

The key recommendations for each of these elements are as follows:

TSM

The TSM element proposes a set of relatively low cost actions for improving vehicular movements in the Corridor. It includes traffic engineering actions to improve the flow of autos, improve transit effectiveness, and reduce pedestrian/vehicle conflicts.

The two major recommendations are:

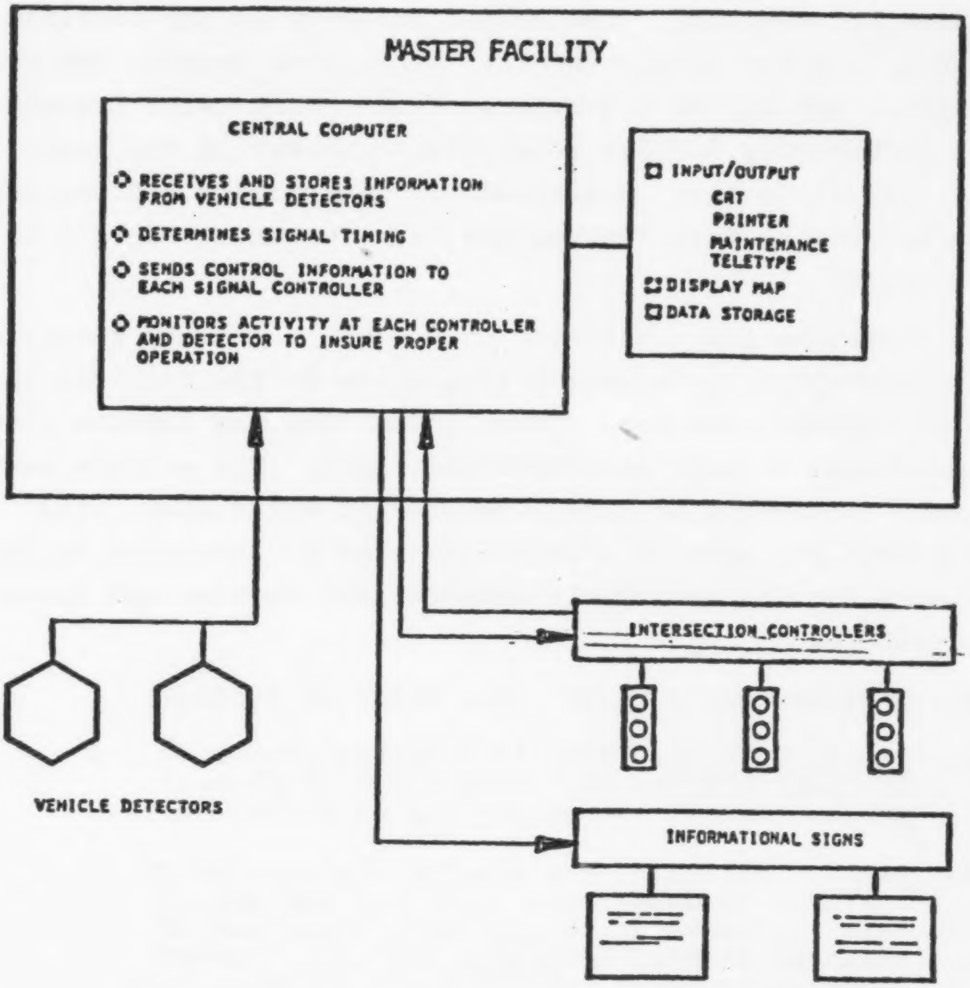
1. Development of an integrated traffic control system for the Corridor.
2. Development of preferential vehicle lanes along a limited section of the Corridor (this proposal is shown as part of the circulation recommendations presented below).

A diagram of the concept involved in the Corridor traffic control system is shown in Figure 2. Installation of the system would involve signalizing more intersections to assist side street access to Highway 50 and pedestrian access across the highway. Coordination of the system along the complete length of the Corridor would in turn decrease delay in traveling along the Corridor. In addition to coordinated signal phasing, the system would feature transit vehicle priority capability and informational signing.

Transit Element - Community Mixed Mode Transit

The short-range transit recommendations seek to involve a variety of types of transit, and providers of transit, outside the realm of traditional public transit.

One of the unique aspects of the Corridor is the large number of private entities providing lodging and recreational


MASTER FACILITY
CENTRAL COMPUTER
RECEIVES AND STORES INFORMATION FROM VEHICLE DETECTORS
DETERMINES SIGNAL TIMING
SENDS CONTROL INFORMATION TO EACH SIGNAL CONTROLLER
MONITORS ACTIVITY AT EACH CONTROLLER AND DETECTOR TO INSURE PROPER OPERATION
INPUT/OUTPUT
CRT
PRINTER
MAINTENANCE TELETYPE
DISPLAY MAP
DATA STORAGE
INTERSECTION CONTROLLERS
VEHICLE DETECTORS
INFORMATIONAL SIGNS

HIGHWAY 50 CORRIDOR STUDY
in the
South Lake Tahoe Area

jhk & associates

Figure 2

CORRIDOR TRAFFIC CONTROL SYSTEM

activities for visitors. Commercial activity in the Corridor is typified by private entrepreneurial activities serving the visitor population. One of the intentions of the short-range transit plan is to directly involve this private sector in the supply of transit, and it is this involvement of both public and private transit activities that denotes the term Community Mixed Mode Transit (CMMT).

An incentive for mobilizing these latent private resources lies in developing preferential facilities in the Corridor that can favor certain vehicles. Other incentives may involve monetary advantages to both providers and users. The private sector is thereby encouraged to engage in transit activities, with reinforcement for such actions coming from an increased desire by visitors for the relatively personalized service and travel time advantages.

The CMMT concept involves four modes as follows:

1. Public Transit. This includes neighborhood and Corridor components, providing a 'backbone' public transit system for the South Lake area.

2. Taxis. Taxicabs are a major transportation resource in South Lake Tahoe and the aim of this component is to encourage wider use of taxicabs as high occupancy vehicles through implementation of 'shared ride' concepts, and related communication technologies.

3. Private Limousine. Private limousines are currently used by casinos and motels to provide special service to their guests. These services typically use vans or small buses and thereby provide a high occupancy mode of transportation that is both a convenience to guests and also reduces the demand on the highway and on parking facilities.

4. Paratransit. In recent years, there has been considerable interest in paratransit as a component of the urban transportation system. Preferential highway treatment along with

other incentives has the potential to encourage activities such as jitney service, van pools, and private sector shuttle services.

A feature of the CMMT concept is that it seeks to obtain private funding indirectly by encouraging the private sector to provide transportation services. These services would essentially be established on an individual basis, tailored to the particular features of each private entity providing the service. Since there would be some marketing advantages in addition to other incentives to offset the cost, the effective financial participation should be greater than might otherwise be obtained through some form of direct public transit subsidy levy.

The transit concept seeks to serve a variety of users by a variety of providers in a way that reflects the unique characteristics of the South Lake Tahoe area. Its potential for establishing an extensive commitment to transit will not only be of immediate benefit, but will also, through its ability to develop confidence in coordinated community action, provide a vital step towards longer term actions.

Circulation

To derive full effectiveness from the Corridor traffic control system, and to establish preferential treatment for the CMMT strategies, circulation improvements are proposed for the motel and casino areas in the northern part of the Corridor. The proposal is for two interrelated improvement actions:

> Major redesign of traffic facilities and operations in the area between Pioneer Trail and the Loop Road to facilitate the movement of pedestrians, buses and autos. This redesign to include preferential lane facilities for CMMT vehicles.
>
> Completion of the east Loop Road in conjunction with the development of the preferential transit lanes on Highway 50.

The general circulation concept for this area is shown in Figure 3. It has three interrelated features:

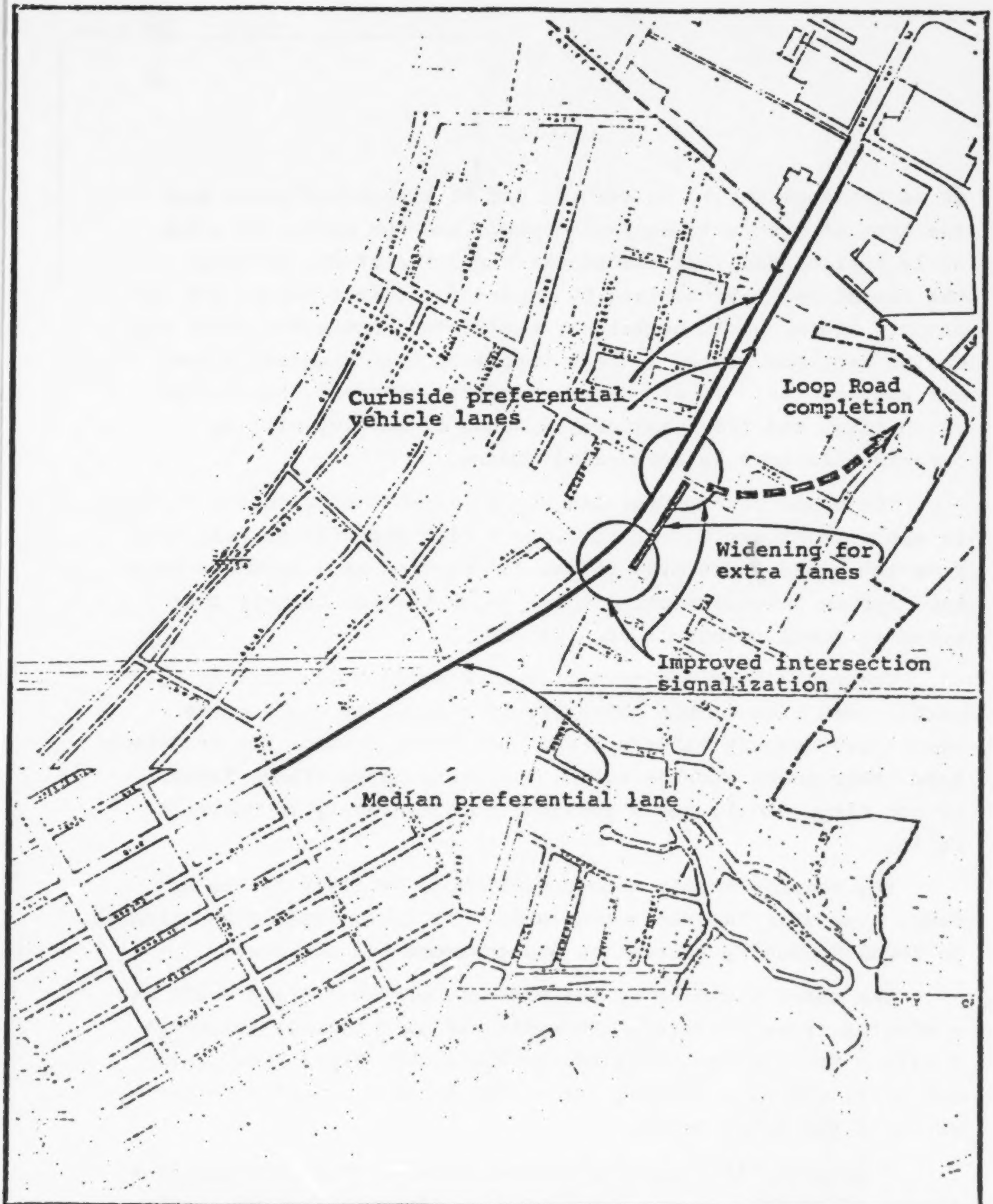
1. The development of eastbound preferential lanes between Wildwood Avenue and Pioneer Trail to give priority to transit vehicles.
2. Improvement of the highway between Pioneer Trail and Park Avenue.
3. Completion of the Loop Road to increase capacity in this section of the Corridor, and trading off the additional capacity from the Loop Road by providing preferential lanes between Park Avenue and the casino core area.

The actual implementation plan would be determined after a detailed study of this part of the Corridor, but the concept described here provides a feasible basis for an integrated set of improvements in this critical area.

LONG-RANGE TRANSPORTATION IMPROVEMENTS

The analysis made in this study indicates that a major investment in transit intensive transportation improvements should be pursued for the Highway 50 Corridor. At the same time, it must be recognized that such an investment will undoubtedly have far reaching community impacts. The implanting of high capacity, high technology transit system on the Corridor cannot be undertaken without regard to the adjacent urban structure if the system is to successfully fulfill its objectives. Both transportation and land use will need to be carefully planned in combination. The simultaneous integration of supporting community structure can reinforce the type of transit intensive use that is intended; and, in turn, the high capital expenditures that must be committed, can result in positive benefits to the community being served.

The overall concept for developing long-range transportation improvements in the Corridor recognizes that there are a variety


Curbside preferential vehicle lanes
Loop Road completion
Widening for extra lanes
Improved intersection signalization
Median preferential lane

HIGHWAY 50 CORRIDOR STUDY
in the
South Lake Tahoe Area

jhk & associates

Figure 3

SHORT RANGE CIRCULATION IMPROVEMENTS

of market segments to be served, and that they influence both the type of system to be implemented, and the manner in which it is implemented. In the southern portion of the Corridor, the demand is characterized by a need for fast service with few stops. Riders would be largely residents. Along the motel and casino sections, speed is less important than frequent stops, and easy access. In all cases, comfort, attractiveness, high visibility, and (for visitors) a sense of novelty will be important factors in attracting riders.

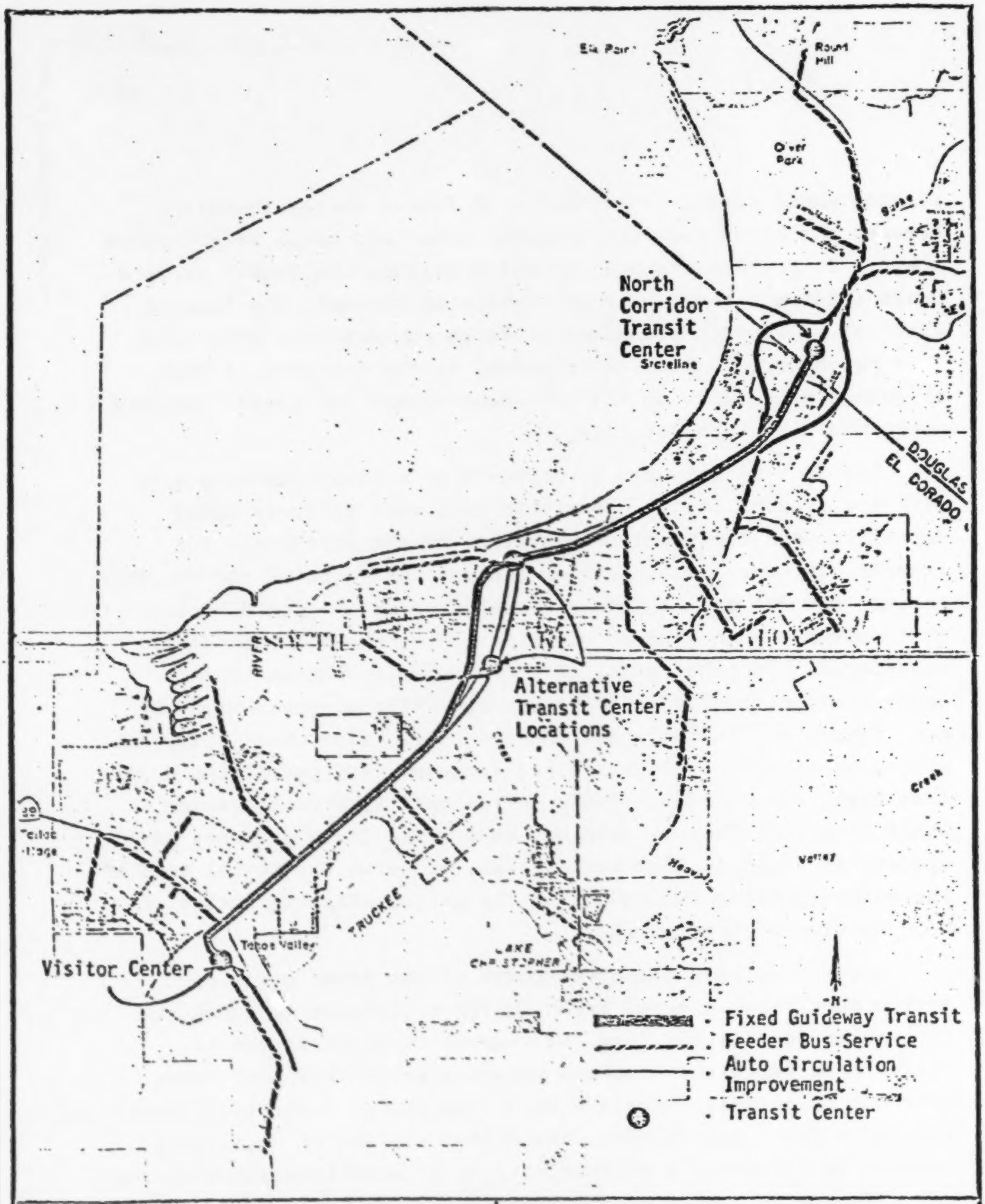
The basic concept for long-range improvements in the Corridor is shown in Figure 4. It involves a high capacity transit link from the casino core area to the 'Y' serving as a backbone line-haul system interconnecting three major transit centers that serve as focal points of the system.

The north Corridor transit center would be located in the casino core area. This major transfer facility would serve pedestrian-transit transfers and would also provide for transfers from other modes such as autos, intercity buses (Reno, Tahoe, Carson City, etc.), and a possible future tramway to Heavenly Valley.

The second transit center would be a facility in the Al Tahoe area near the recreation area. It would largely be oriented to local community recreation and governmental services.

The third would be in the vicinity of the 'Y' and would be a visitor transit center. It would act as a transit intercept facility for visitor trips to the South Lake Tahoe area (auto and bus), and as a staging center for transit travel to other parts of the Tahoe Basin.

Supporting the guideway system transit center concept is a system of transit feeder services. In the northernmost section of the Corridor, these would serve areas such as Round Hill, Kingsbury Grade and other communities in this vicinity. The


Elk Point
Round Hill
Oliver Park
North Corridor Transit Center
Stateline
DOUGLAS
EL DORADO
RIVER
Alternative Transit Center Locations
Creek
Heavenly
Valley
Creek
TRUCKEE
Tahoe Valley
LAKE CHRISTOPHER
Visitor Center
50
N
Fixed Guideway Transit
Feeder Bus Service
Auto Circulation Improvement
Transit Center

HIGHWAY 50 CORRIDOR STUDY
in the
South Lake Tahoe Area

Figure 4

LONG RANGE IMPROVEMENT CONCEPT

service would consist essentially of feeder routes shuttling between the north Corridor transit center and these neighborhood areas. Throughout the rest of the Corridor, the feeder service would intercept the line-haul service at conveniently located stations. Although transfers would be required for most trips from neighborhood areas to locations in the Corridor, a high frequency of service on the line-haul system and timed transfers would minimize transfer times.

The Line-Haul System is proposed as a fixed guideway type with the flexibility to operate in different guideway modes depending upon the particular section of the Corridor. For example, in some areas, such as the southern part of the Corridor between the 'Y' and Al Tahoe, elevated operation could be the most suitable when land acquisition and access needs are fully considered. In other parts of the Corridor~~,~~. ~~such as the Al~~ Tahoe area, exclusive right-of-way operation at-grade might be more feasible. In the motel and casino sections where trips are short, boarding and alighting are frequent, and pedestrian densities high, shared right-of-way 'streetcar' type of operation would be a satisfactory guideway mode. The fixed guideway would operate as a single line-haul system, but with the actual form of the guideway being determined by the unique characteristics of each section of the Corridor.

Concurrent with the development of the fixed guideway system should be selected urban design activities to integrate the system sensitively into the supporting urban structure. While these represent land use planning activities, and hence were not specifically dealt with in the study, their importance cannot be under-emphasized. The implementation of a guideway transit in a community of this size is an ambitious yet challenging undertaking, and its success will rest primarily with the degree to which it can relate to both transportation and land use objectives.

ORGANIZATION

The implementation of a transportation improvement program for the Corridor will require an organizational structure to manage transit activities in the area and establish a suitable financing base. Both of these must be considered as immediate priority for implementing the type of short-range and long-range recommendations presented here.

Various management structures could be established, each with their specific advantages and disadvantages. One that merits serious consideration is a management structure in the form of a Transit Management Agency (TMA), such as shown in Figure 5.

The primary authority vested in the agency would be decision-making powers regarding how funds should be expended on transit. Responsibility for transit operations would be one of the agency's responsibilities and could be carried out in a variety of ways under a form of brokerage system. In addition, the agency would be responsible for key functions such as financing. planning, and implementation of long-range transit improvements.

CONCLUSIONS

The findings of this study indicate a severe problem that demands immediate action. While no improvement options are ideal in the sense of being easily accepted by all segments of the community, it is apparent that:

1. Short term improvement actions having relatively low costs and impacts are available.
2. Such short term actions can both improve the existing situation, and provide a logical step to longer term improvements.
3. Longer range improvements can, with sensitive attention to both land use and transporation issues, result in long term solutions to the problem and in positive benefits to the community.

ORGANIZATIONAL STRUCTURE FOR TRANSIT MANAGEMENT

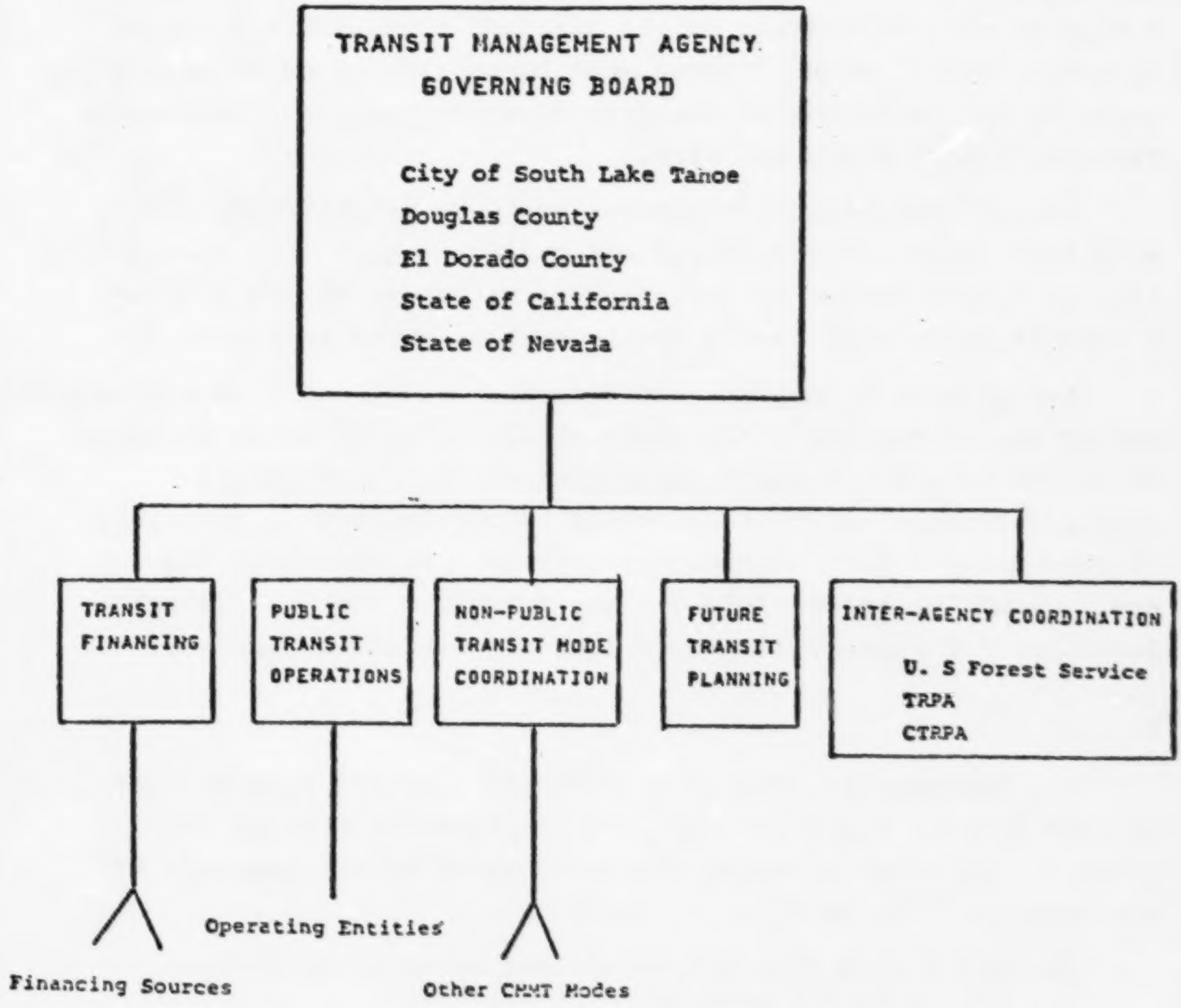

TRANSIT MANAGEMENT AGENCY
GOVERNING BOARD
City of South Lake Tahoe
Douglas County
El Dorado County
State of California
State of Nevada
TRANSIT FINANCING
PUBLIC TRANSIT OPERATIONS
NON-PUBLIC TRANSIT MODE COORDINATION
FUTURE TRANSIT PLANNING
INTER-AGENCY COORDINATION
U. S Forest Service
TRPA
CTRPA
Financing Sources
Operating Entities
Other CMMT Modes

Figure 5

TRANSIT MANAGEMENT STRUCTURE

An immediate start should therefore be made on setting up the requisite organizational structure and implementing the short-range improvements. At the same time, planning for the longer range improvements should begin. By timely coordinated action, the South Lake Tahoe area has a unique opportunity to develop a comprehensive transportation improvement program that is sensitive both to community needs and to the unique natural resources of the area.

This study was jointly financed by the City of South Lake Tahoe, El Dorado County, California, Douglas County, Nevada, California Department of Transportation (Caltrans), and the Nevada Department of Highways. The portion contributed by Caltrans was financed in part by a planning grant from the Urban Mass Transportation Administration of the U.S. Department of Transportation (UMTA) under the provisions of the Urban Mass Transportation Act of 1964 as amended. The contents of this report do not necessarily reflect the official views or policy of any of the sponsoring entities, and are the sole responsibility of JHK & Associates.

(HE-158) 30

LAKE TAHOE AUDUBON SOCIETY

P.O. Box 1105, South Lake Tahoe, California 9570

22 February 1980

Environmental Protection Agency
Region IX
215 Fremont St.
San Francisco, CA 94105

Dear Sirs:

I am Kenneth C. Smith M.D, submitting testimony for the Lake Tahoe Audubon Society on the Draft Environmental Impact Statement for Proposed Wastewater Treatment Facilities, South Shore, Lake Tahoe basin. We presently have a paid membership of 180, most of whom are residents of the Lake Tahoe basin.

This testimony is an expansion of a verbal presentation I made at your South Lake Tahoe hearing.

We believe that the Draft EIS clearly describes the impact of upgrading present sewage treatment processes and expansion of capacity of the plants at South Lake Tahoe.

We feel the non-degredation policy of the federal government in relation to point source and non-point source discharges should be incorporated into the Final EIS rather than just appearing in the covering letter. This policy is an essential consideration in making decisions on the proposed actions.

We hope that the EPA will give full consideration to the Draft 208 plan recently released by the State Water Resources Control Board as well as the Environmental Assessment of the Lake Tahoe Basin being circulated for comment by the Western Federal Regional Council. These reports address existing problems in the Tahoe basin and would also apply to future development.

We hope a coordinated plan of mitigation actions will be established as a derivative of all these studies.

The long list of mitigation measures described in the Draft EIS details in broad terms many actions that would be beneficial to the environment at Lake Tahoe. Without priorities attached to them it is difficult to anticipate which measures will be selected by the implementing agencies for action.

We encourage the EPA to provide firm supervision to assure that the commitments the utility districts are directed to obtain from implementing agencies are enforceable and effective before any public funds are provided for the sewage improvements described in the draft.

Funding of the mitigation measures will be a major challenge. In the past the standard reply from local implementing agencies was that they would accomplish whatever the federal and state governments will pay for. Many of the suggested mitigation measures will exceed the fiscal capacity of the local agencies.

We hope that the EPA will approve grant applications only after a fully effective program of mitigation has been reviewed and shown to be feasable.

All too long Tahoe has suffered from paper plans and paper promises without a program of effective implementation put into effect.

We are suprised by the absence of a no-project alternative. The 7.3 mgd flow in Senario 1 for STPUD is a significant increase over present capacity. Not increasing flows would have a different fiscal and environmental impact on the community that should be addressed.

More detailed comments:

On page 9 it is stated that the Interstate Compact controls water supply. The compact is not in force as it has not been approved by Congress. It is used as a guideline.

In Table 4, page 15, the Soil Conservation Service and the California and Nevada Resource Conservation districts should be included among agencies responsible for implementing Best Management Practices.

Page 23. The growth of Alpine County has been accelerating rapidly over the past decade. The absolute numbers appear small but in proportion to the small population of the smallest count in the state they are a significant increase.

Comment should be made on page 45 concerning the adequacy of the DCSID pond to contain effluent and not leak it into the groundwater at Tahoe, a point in dispute.

Page 69: In the 1976-77 drought no pumping of Tahoe water occured at the Tahoe City dam, although it had been considered.

Page 183: There is no skilled nursing facility in the basin. There are some board and care facilities. Drug abuse clinics do not exist. Some counseling programs will work with drug abusers. Since Proposition 13 in California was adopted the state is funding mental health services 100%.

Sincerely yours,

Kenneth C Smith MD

Kenneth C. Smith M.D.
Past-President
Lake Tahoe Audubon Society

Tahoe Resource Conservation District

P.O. BOX 10529 SOUTH LAKE TAHOE, CALIFORNIA 95731 TELEPHONE (916) 541-1496
(916) 541-5654

(HE-158) 31

February 22, 1980

Mr. Paul De Falco, Regional Director
Environmental Protection Agency
215 Fremont St.
San Francisco, CA 94105

Dear Mr. De Falco:

The Board of Directors of the Tahoe Resource Conservation District has reviewed the Draft Environmental Impact Statement on proposed wastewater treatment facilities at the south shore of the Tahoe Basin.

We feel the DEIS accurately describes the environmental impact of expanded capacity at the plants. Mitigation measures are also well identified.

Our concern is that the mitigation measures accepted by the EPA be effective and implementable. We hope that these measures address correction of existing sources of erosion and the absence of vegetative cover as well as preventing future problems associated with development.

Our district will be happy to assist in providing professional advice on measures for preventing and correcting soil erosion, establishment of vegetative cover on disturbed soils, and designing conservation plans for individual property owners.

Our Board of Directors is directly elected by the public and the district has the authority to work directly with private property owners on a co-operative basis.

An application for formation of a Resource Conservation and Development Area encompassing the entire Tahoe Basin is pending before the Secretary of Agrigulture. When approved, this new group can organize projects on both sides of the stateline and additional funding for projects could be made available for larger projects.

Sincerely,

Kenneth C. Smith MD

Kenneth C. Smith, M.D.
Director, Tahoe Resource Conservation
District

KCS/br

CONSERVATION · DEVELOPMENT · SELF-GOVERNMENT

(HE-158) 32

KEEP
TAHOE
BLUE

LEAGUE TO SAVE LAKE TAHOE
2197 Lake Tahoe Boulevard, Post Office Box 10110
South Lake Tahoe, California 95731
Telephone: (916) 541-5388

February 26, 1980

Mr. Paul DeFalco, Jr., Regional Administrator
U.S. Environmental Protection Agency, Region IX
215 Fremont Street
San Francisco, CA 94105

Dear Mr. DeFalco:

Attached please find supplemental comments submitted on behalf of the League to Save Lake Tahoe with respect to the Draft EIS for proposed wastewater treatment modifications at Lake Tahoe.

Sincerely,

Jim Bruner

James W. Bruner, Jr.
Executive Director

JWB:lt

encl.

(HE-158) 32

Comments have been submitted on behalf of the League to Save Lake Tahoe dated February 19, 1980 by Joseph J. Brecher, which covered the major issues raised in the League's review of the Draft Environmental Impact Statement for the proposed waste water treatment facilities at the south shore of Lake Tahoe.

In addition, the following detailed comments related to noted sections of the E.I.S. complete the League's statement for the hearing record.

p. 2 para 2 The EIS states that the DCSID draft facility plan does not request an expansion beyond the original design capacity of 3 mgd. At the TAC meeting of July 1978, the DCSID representative, Jere Williams, discussed plans for a 4.8 mgd capacity plant and stated that expansion to 4.8 mgd would require only "minor modifications." The final EIS must acknowledge and address the District's previously stated intention for this substantial expansion, and its impact singularly and in combination with the proposed STPUD levels. Further, if DCSID intends to expand their existing plant to 4.8 mgd without federal aid, is the proposed disposal site designed for 4.8 mgd? The draft EIS does not address this issue clearly. In fact, we are not able to determine which growth scenario the EPA recommends funding for DCSID. Without such basic information available prior to publication of the final EIS, the public is precluded from commenting knowledgeably on the primary issue of this EIS--growth and its impact on the Tahoe environment. The draft EIS is inadequate as it pertains to the question of the growth level permitted by the EPA recommendation.

p. 82 para 4 The draft EIS states that "intensive development in high erosion hazard lands without proper site development precautions would undoubtedly and adversely affect the beneficial uses of waters in the Lake Tahoe Basin." However, the report documents that no proper site precautions presently exist which preclude the adverse effects of development in high hazard lands. The final EIS must eliminate this statement which leads to later loophole provisions for development in high hazard lands.

p.85-6 last para The draft EIS lists three implications of urbanization in SEZs, but hedges the implications through the word "may." The final EIS must state the case as it has documented it:

--the ability of these zones to convey surface runoff will be restricted

--severe disturbance to valuable fish and wildlife habitats will occur

--a potentially effective natural treatment process will be removed.

p. 86 para 4 The draft EIS states that "continued land disturbance without erosion control measures will result in a steady influx of sediment and nutrients..." The final EIS must state that continued land disturbance with or without erosion control measures will result in a steady influx of sediment and nutrients as long as development is permitted in high hazard lands.

p. 94 para 1&2 The draft EIS has left out two major areas of high erosion hazard lands--Heavenly Valley and Cave Rock. The final EIS should include these areas.

p. 95 para 3 The draft EIS states that "the amount of growth which will be allowed to occur in SEZs may not follow past trends. The use of the permissive word "may" is typical of the basic problem with this EIS; following pages of documented evidence of adverse impacts, the EIS backs away from taking a stand. The final EIS must guarantee protection of SEZs.

The sixth paragraph repeats this problem; it concludes that development in SEZs "could" eliminate the natural capability for water treatment. The final EIS must say that development will eliminate the capability.

In the final EIS, EPA must answer the following questions:

1) Is there any documented evidence of development in SEZs which does not result in the reduction of natural treatment?

2) Is there any documented evidence of development in SEZs which has not increased sediment or nutrients?

p. 98 para2 EPA's finding that increased development would accelerate the degradation of water quality in Lake Tahoe and its tributaries must be followed in the final EIS by the statement that such an effect is a violation of the Federal non-degradation policy.

p. 99 para 2 "Fishable and swimmable" should be identified as national goals. Obviously the specific goals for the Mississippi are different than those for Lake Tahoe.

The draft EIS suggests that selected mitigation measures "should" be consistent with the 208 plan. If mitigation measures have been selected in the 208 plans specifically to protect water quality, it would seem both logical and efficient to require that the mitigation measures adopted for the final EIS be consistent with the 208 plan.

p. 99 para 3 The draft EIS recommends infiltration trenches as a mitigation measure in SEZs. The January 1980 storm--a probable ten year storm--proved conclusively that infiltration trenches in SEZs, which are generally under water or beyond saturation point, do not work. Continued recommendation of such a measure, with its significant disruption of the land, flies in the face of common logic and engineering knowledge.

p.100 para 2 The draft EIS finds that the effectiveness of the listed mitigation measures could be high. The SWRCB 208 plan finds that the effectiveness will be poor on high hazard lands. The final EIS should include this information from the 208 plan.

p. 102 para 4 The draft EIS recommends a monitoring program as a mitigation measure. A monitoring program, in fact, works in reverse. Development is allowed to proceed even though its adverse impacts are unknown, based on a condition for a monitoring program. Later, when the monitoring shows the actual adverse impacts, the development is allowed to remain. The final EIS should delete monitoring as a mitigation measure.

p. 103 para 5&6 The draft EIS suggests that compensation for landowners who are restricted in development or lot purchase may not be feasible, because of the uncertainty of who should pay. The draft EIS should have researched this problem thoroughly and recommended specific funding sources as well as the necessary legislation which would be required. EPA is certainly capable of providing this important element of an EIS. The League strenuosly objects to the cavalier dismissal of the most effective mitigation measure available for the protection of Lake Tahoe. The final EIS must include a detailed analysis of potential funding for such compensation and discuss the high effectiveness of lot purchase vs. development for water quality. This should include acquisition and regulatory solutions as they appear in H.R. 6338 which would establish a Lake Tahoe National Scenic Area.

p. 104 Timing The draft EIS recommends a basinwide study as a mitigation measure. A study is not a mitigation measure. The TDR concept may provide some relief to development pressure on SEZs, but only exacerbates air quality, transportation and water supply problems through the increased densities permitted elsewhere. The final EIS must delete this study as a potential mitigation measure.

The mitigation measure missing in this section is the recommendation to implement a SEZ ordinance to prohibit development in SEZs. The final EIS must address this mitigation measure in detail.

p. 117 para 1 The League notes and emphasizes that the draft EIS finds that "critical damage would occur to SEZs under all scenarios..."

p.119 para 5 The draft EIS finds that "critical damage" will occur to SEZs, then recommends that development be restricted in SEZs. Clearly the only way to protect SEZs from critical damage is to prohibit development in SEZs. The final EIS should incorporate such protection and a mechanism to insure that protection.

p. 121 The map has been taken from the CTRPA Transportation Plan but the disclaimer as to the actual flight patterns has been removed. The final EIS must include the CTRPA disclaimer.

p. 124 para 2 The writer of the EIS has confused dBA with CNEL. Residences far beyond the 60 CNEL contour experience noise levels greater than 85 dBA from several types of aircraft which frequent the Tahoe Valley Airport.

p. 124 para 7 The Board of Supervisors and the airport director may have limited the hours of airport operation and recommend noise abatement take-off procedures, but there is no enforcement procedure and consequently the measures are largely ineffective. The last sentence should read "such measures should be enforced..."

p. 126 para 3 Noise Insulation standards are not a mitigation measure for an outdoor community such as Tahoe. The effectiveness section should note that such insulation is only effective if the affected resident is indoors.

p. 141-2 The mitigation measures proposed to protect against visual deterioration are the most clearly written in the entire EIS. If it is possible to recommend protecting SEZs from further development, lot purchase and a National Scenic Area as effective and feasible mitigation measures in this section, then it ought to be possible in the more critical water quality sections.

p. 152 para 5	The city has a growth management study. The city has not contracted for nor directed its staff to prepare a growth management plan. The 20-20 Committee report was completed September 1978, but has not been adopted by the city council. Such studies do not reflect the threshold concept.
p.156 para 1	The draft EIS suggests significant land use changes. It appears that EPA is saying that TC zoning is better than LDR. Is TC less damaging than LDR? What are the increased sewage system demands from TC as compared to LDR? On what evidence is all of this based? If this paragraph is intended to indicate changes that will occur due to economic pressures caused by sewage treatment expansion, these issues should be addressed forthrightly.
p.166 para 6	The draft EIS recommends an increase in allowable densities, yet there is no analysis of the effect on transportation and water supply. The final EIS must address this impact.
p.168 para 5	Minden also has an airport.
p.170 para 4	Parking spaces have also been increased in commercial areas.
p.183 para 1	No health services are provided by Douglas County at the south shore.
p.184 para 3	Douglas County garbage is picked up by South Tahoe Refuse and trucked to the South Tahoe transfer station.
p.195 para 12	The final EIS must require recycling and resource recovery.

p. 199	The water supply section is incomplete in that projected water needs of the north shore have not been provided. If DCSID would use 40% of the water, does that mean Incline would only require 60%? Since water is allocated basin wide, the potential conflicts between north and south shore communities must be understood. The final EIS must address this issue in a clear and understandable manner.
p.208 para 1	NT & TCPUD have metered all water customers, at a per unit cost well below STPUD's estimates.
p.281 para 2	The draft EIS states that the "intent of the questions was to identify the level of environmental deterioration that could be tolerated." Former members of the TAC state that that intent was never identified. Had it been clear, the results could have been considerably different.

In addition, the draft EIS does not address the lack of storm drainage systems and subsequent flooding problems that occur with even relatively small storms. The impact of more development in areas of severe drainage problems, the impact of flooding on and from SEZ development, the costs to local public works departments of storm caused erosion, deposition and flooding from increased development must be analyzed in the final EIS.

This draft EIS does not make clear EPA's position on the STPUD's proposed 1 mgd pilot plant project for in-basin reuse of effluent. Although alternative #4 is not the preferred alternative, does the EPA intend to support this project _in addition_ to the recommended 10 MGD? If so, then the EIS must clearly state that the EPA recommendation will be for 11 MGD, or one million gallons more than needed in the highest growth scenario. If not, the EPA must state the 1 mgd pilot plant will not be considered for federal funding.

The League to Save Lake Tahoe requests that each of these specific comments receive a response and that all issues raised by the League be thoroughly addressed in the final EIS.

In our earlier comments we asked that the _Lake Tahoe Environmental Assessment_ (December, 1979) be incorporated by reference. It is important to remember a passage from that document..."The urban environment is in dire need of expansion in a number of service areas, all of which, if satisfied, will create a new round of expansion...and more environmental degradation".

South Tahoe Public Utility Distr
PO BOX A U
So. Lake Tahoe, Ca. 95705

(HE-158) 33

U.S.E.P.A
REGION 9
COMM CNTR

February 26, 1980

FEB 28

U.S. Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, Ca. 94105

Attention: Hearing Officer HE-158

Gentlemen:

Lake Tahoe - the Lake of the Sky - has been called "one of America's natural wonders." Several decades ago, when many of our parents and grandparents arrived in the Basin to make their homes, they saw Lake Tahoe as a spectacular phenomenon - a cobalt mirror reflecting the towering Sierras.

It still is.

Those of us who have lived at Lake Tahoe all or most of our lives, who have reared our children here and who hope that our grandchildren will choose to live in this special place we call "home," recognize above all else that there is a need for long-range, planned, controlled protection of the Basin's delicate environment. We realize even more urgently, however, the need that exists TODAY to protect the quality of life, the unique Alpine ambience that is Lake Tahoe. Therefore, we support the proposal by the South Tahoe Public Utility District to implement immediately measures to modify and expand its wastewater treatment and disposal system.

For the more than 12 years since STPUD's initial plant development, we have supported the agency's effort to collect and treat all wastewater and export it outside the Tahoe Basin; we have advocated that these measures are essential to protect the natural environment of our home - the Basin - even though it has meant that we have been required to pay one of the nation's highest sewer charges. We continue our support because we strongly believe that Lake Tahoe must be preserved - at all costs - from degradation.

We do not believe, however, that limitation of the capacity of the South Tahoe Public Utility District sewer treatment facilities will solve the potential threats to the environment, as proposed in the Federal Environmental Protection Agency's Draft Environmental Impact Statement. The DEIS has been developed on the premise that limitation of sewer capacity will limit growth in the Basin and thus solve future "buildout" problems. But let's look at these situations in perspective: "buildout" of the 10,800 lots in STPUD's service area is a potential problem which should be addressed to long-range planning, and indeed, the County of El Dorado, the City of South Lake Tahoe and STPUD recognize the "buildout" potential and already are proposing a financing plan for the identification and equitable purchase of lots in environmentally sensitive areas, or - alternatively - to provide ecologically sound development of the sites.

This responsible concern by the three major local agencies and numerous other supportive bodies in the area is in keeping with the phrase "mitigation measures" which crops up constantly in connection with STPUD's request for a grant to modify and expand their existing system on the South Shore. We contend that the STPUD treatment plant was one of the "original" mitigation measures in the Basin, and has continued as such during the past 12 years to protect Lake Tahoe from uncontrolled wastewater discharge and further degredation. The January, 1980 storms forced recognition that STPUD (which, unfortunately, has received insufficient expansion funding since its inception) was unable to handle the storm flow to the plant during the power outage. The only alternative was to pump partially treated wastewater to Heavenly Valley Creek; this wastewater eventually reached Lake Tahoe, and the situation certainly must be cited as a clear case for the necessity of the immediate upgrading of STPUD's wastewater and sewage treatment plant.

Agencies on the South Shore, in conjunction with regional, state and Federal bodies, have continually expressed a sincere desire to protect the existing environmental quality of the Lake Tahoe Basin, and even now local agencies are banding together in an attempt to meet the mitigation requirements imposed by both the Federal Environmental Protection Agency and the California State Water Resources Control Board. These mitigation requirements, however, were researched and developed over a two-and-a-half year period, while the agency responsible for implementing them - STPUD - has had only two-and-a-half months to request and acquire commitments from other bodies for implementation. Efforts to solve transit, water, traffic, sewer, population expansion and related problems are the responsibilities of all concerned agencies, but they must be viewed in perspective of both immediate and long-range requirements.

Paramount responsibilities now - as we see them - include the implementation of expansion and modification measures to existing sewage treatment capacities through Federal and State funding. Those of us who live at the South Shore ask that the EPA recognize the primary need for the protection of our Basin and help us solve EXISTING wastewater control problems by granting funding for the immediate design and future expansion of STPUD's plant. Construction costs spiral with each passing year. Next year the problems will be greater and so will the cost of solutions.

If we can't protect the Lake Tahoe environment today, how can we possibly hope to protect it tomorrow?

Respectfully submitted,

(see attached)

February 26, 1980

Respectfully submitted,

Robert Mason

Glenn Mathews

P. M. Bernhardt

Gerald E. Johnson

Donald L. Clarke

Donald H Korte

Frank Souza

Joseph Mayer

(HE-158) 34

U.S.E.P.A.
REGION 9
[illegible]
1980 FEB 2[illegible]

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
630 Sansome Street
San Francisco, California, 94111

February 19,1980

Mr. Paul De Falco
Regional Administrator
Environmental Protection Agency
215 Fremont Street
San Francisco, CA 94105

Dear Mr. De Falco:

I appreciate the opportunity to respond to the Draft Environmental Impact Statement for the Proposed Wastewater Treatment Facilities-South Shore, Lake Tahoe Basin. The Forest Service not only is an existing user of the South Tahoe and Douglas County treatment facilities, but will be seeking to expand our usage in the future. Only at STPUD does the Forest Service have an established reserve capacity.

Three primary Forest Service concerns are present in the issue of wastewater facility modification and/or expansion at Lake Tahoe. First is the realization that without modification, neither treatment plant can meet discharge requirements in the future. Water quality both within and outside of the Basin would be adversely affected, even without any further development in their service areas. Second, and probably most important, is concern that with expansion a new round of development could occur without adequate mitigation of the problems that now confront the Basin. The third is that a fair return on the sizeable investment by the Forest Service on behalf of the public might not be realized in terms of high quality recreation experiences.

In the "Lake Tahoe Environmental Assessment" prepared by an Interagency Task Force of the Western Federal Regional Council (December 1979) it has been concluded that the capacity of nearly all of Tahoe's environmental components has been equaled or exceeded. A goal of all actions in the Basin should therefore include provisions that prevent further stressing these environmental components. The Draft E.I.S. proposes some good measures to mitigate new primary and secondary effects on expanded wastewater treatment capacity, but may not go far enough to prevent adverse trends to continue. Realistically, even the best management practices seldom mitigate all impacts of an action. Thus, some measures to correct past problems may also be appropriate.

Outdoor recreation visitor use has increased 6% during the period 1970-1978. During the same period, gaming visitor use has increased 104%. This may be reflective of visitor demands, but it also includes the disproportionate ability of the gaming industry to provide facilities. The Forest Service has substantial opportunities to expand recreation for the public and has been acquiring lands suitable for enlarging the opportunities. Yet, these opportunities are being diminished by the rapid development on private land. Further investments of federal dollars must be predicated on there being reasonable assurances that opportunities for additional public outdoor recreation will be provided.

Like many of the local officials, I do not consider it appropriate to regulate the growth of a community by constraining the size of wastewater treatment facilities. Rather, I believe the treatment plant capacity should be governed by the planned size of the community. However, studies of the Tahoe environment strongly indicate that the ultimate size of the South Shore community should be substantially less than that possible under current zoning and land use ordinances. More recent planning activities of TRPA, CTRPA and other agencies support this. Therefore, it is preferable that the federal government be willing to fund only that size plant necessary to accommodate the growth anticipated under a comprehensive Basin-wide plan that is fully in accord with the environmental constraints and the technological and economic capabilities of the entities, both private and public, operating there. It does not appear possible to ascertain the likely outcome on the Lake Tahoe environment by evaluating a collection of related but uncoordinated mitigative measures as evidently contemplated by this EIS process. The best and perhaps only effective way to deal with environmental impacts associated with expansion of sewer plants at South Lake Tahoe is by means of a Land Use Plan developed from a " holistic" model as advocated in the Federal Environmental Assessment.

In summary, I believe EPA should fund no expansion to accommodate continued growth in the Basin until a new comprehensive Basin-wide land use plan based on the concept of environmental thresholds has been prepared and implemented. I also believe that EPA should support modifications of the plants as necessary to meet water quality standards for those quantities of sewage effluent generated by current development plus other firm commitments made by the districts. An exception to those firm commitments made would be capacity to accommodate casino construction or expansion regardless of administrative permits obtained since it has been adequately shown that such expansion is not in the public interest.

Furthermore, if any support for increasing capacity of the Douglas County SID plant is to be funded, it should be conditioned on there being a specified amount reserved for use by the Forest Service and Nevada Division of State Parks and Douglas County for public purposes.

More specific comments relating to suggested mitigation measures proposed in the Draft EIS are attached as well as some information to clarify the text of the DEIS. If you have need of more information about these comments, please contact Marc Petty of my staff.

Sincerely,

Zane G. Smith Jr.

ZANE G. SMITH, JR.
Regional Forester

Enclosure

U. S. FOREST SERVICE COMMENTS ON
D.E.I.S. FOR PROPOSED WASTEWATER TREATMENT FACILITIES
SOUTH SHORE, LAKE TAHOE BASIN

Page 116, paragraph 2 - Osgood Swamp is not entirely on National Forest.

Page 118, paragraph 7 - TRPA, USFS, and the Nevada Department of Wildlife also have responsibility in Nevada.

Page 151, paragraphs 1,2, and 3 - The following is suggested to improve the understanding of the discussion of National Forest plans.

> As management policy was revised, refined and developed, the first update of the Multiple Use Plan was documented in 1973. It was distributed for public review as a preliminary general plan and an environmental statement for National Forest lands in the Lake Tahoe Basin. Procedural and other problems caused that plan to be adopted. Rather, portions of it were used to help formulate a statement of goals and management direction (policy) that was approved in 1978 as the Land Management Plan, Part I.
>
> In August 1979, a draft environmental impact statement was submitted to EPA. Five alternative plans for development and use of the recreation, wilderness and other resources of the National Forest land were analyzed as methods for achieving the goals of the Part I plan. When one of these alternatives, or a variation of them, is approved, it will be the Part II Land Management Plan. The proposed

level of development in that plan will become the Forest Service's for achieving a "fair share" for the public of the Basin's capability to accommodate human activity. Establishing and protecting a "fair share" is considered necessary to assure that other development, which is occurring at a faster pace, will not preclude future development for public outdoor recreation enjoyment.

The landownership adjustment goal of the LTBMU is to expand public land ownership to achieve the balance of long-term benefits identified in the plan (U.S. Forest Service, 1978). Approximately 27,000 acres of private land have been inventoried within the Basin that meet evaluation criteria for public acquisition. Ultimate public ownership would represent 85% of the total land base. The evaluation criteria considers recreation opportunities, wildlife, cultural resources and environmental effects. Emphasis is placed on acquiring lakefront or shorezone areas. Consideration is also given to areas where development could have an adverse impact on adjacent National Forest lands. If congressional appropriations for land purchase continue at the current level, Federal ownership will increase to 74 percent by 1983.

Page 265, paragraph 2 - The portions of the Eldorado, Tahoe and Toiyabe National Forests within the Tahoe Basin and including the Nevada portion of Heavenly Valley Ski Area are administered by the Lake Tahoe Basin Management Unit, Region V of the U.S. Forest Service.

USDA - FOREST SERVICE Response to the DRAFT EIS, SOUTH LAKE TAHOE WASTE WATER TREATMENT

COMMENTS ON MITIGATION MEASURES

* Those indicated as U.S.F.S. responsibility (along with others)

Proposed Mitigation Measure	Comment
WATER QUALITY	
*1. Protect stream environment zone.	The Forest Service has established policy that essentially prohibits development in SEZ and controls the level of other activities that occur therein. However, occasional crossing of SEZ with trails, roads, utilities, and similar improvements will be unavoidable due to the nature of SEZ.
*2. Employ Best Management Practices for erosion and sediment control especially in high erosion hazard lands.	The Forest Service utilizes BMP's on all its activities and improvements. Though these practices may help to prevent erosion from new activities, we also feel it is imperative that restoration, stabilization, structural modifications and other corrective action be applied, where existing improvements or activities are contributing to water quality problems. We have been doing this at such places as Heavenly Valley Ski Area, the Meyers landfill site, Meeks Bay Resort, and Osgood Swamp. Corrective action needs to be applied more liberally in the Basin as outlined in Water Quality Plans.
*3. Implement water quality monitoring program.	The Forest Service monitors water quality in numerous places in the Basin, but we do not consider this as a mitigation measure.
4. Purchase subdivided lots zones for development that are on high hazard lands or within SEZ.	This may be one of the most significant, though expensive, mitigation measures. The Forest Service has and will continue to purchase land of this type, however, our program does not extend into much of the urbanized areas of the Basin. We support this proposal as a means of assuring protection of SEZ and preventing development on high hazard areas.

Proposed Mitigation Measure	Comment
BIOLOGICAL	
*1. Control recreational use of habitats frequented by valuable fish and wildlife species.	This proposal is highly supported by the Forest Service and is reflected in our plans. Personnel and financial constraints hamper our ability to control the effects of urbanization on the National Forest. Emphasis has been placed upon protection of threatened, endangered and other sensitive species, but only with partial success due to the large urban interface. Our resources will be taxed with existing problems (such as those presented by unauthorized ORV and other activities and the free roaming domestic dogs.) Likewise we will be challenged by the mitigation needs from our own proposals for the future. Mitigation of new private land development effects on the National Forest System cannot be assured.
*2. Protect active Osprey nests.	Site specific protection of species sensitive to human disturbance cannot be adequately assured, therefore mitigation should include action to expand Osprey nesting activity.
*3. Require surveys of rare and endangered plants.	The Forest Service conducts these as part of project or activity review. The cost of surveys should be borne by the developer if this is not already occuring.
*4. Require construction and maintenance projects to include measures to protect vegetation and habitat.	Measures of this type are required now on National Forest land. Adverse effects cannot be avoided, however, because not all impacts are recognized in advance of these activities nor is compliance checking continuous.
NOISE	All recommendations on noise are considered acceptable though retrofitting may be extremely difficult.
AIR QUALITY	No comments other than to support the recommendation to implement the non-attainment plan.
VISUAL RESOURCE	Proposed mitigation measures may lessen the degree of encroachment on the natural visual resources of the Lake Tahoe area and soften the appearance of human-made changes. There will however be further degradation of visual quality as development occurs, therefore even to maintain the status quo will require corrective action. Some measures to reverse visual dispoiling may be expensive, but continued efforts to encourage action through community interest and pride could be an inexpensive method with significant results.

Proposed Mitigation Measure	Comment
RECREATION	
*1. Acquire land for recreation purposes.	The responsibility needs to be expanded beyond the Forest Service and State Park Departments to local communities as well.
*2. Adopt and enforce ordinances to protect SEZ's and low capability lands from development.	Although these lands can serve some recreation use, this must be coordinated with wildlife and watershed considerations.
3. Improve neighborhood facilities, services and amenities.	National Forest lands have and will continue to provide substantial opportunities for dispersed and developed outdoor recreation, not only to the general public, but to residents, second home owners, and motel/hotel visitors. There are limits to the amount and varieties of recreation that can be offered though. Communities must assume a greater role in providing recreation for residents. Some of this could be through neighborhood parks on land acquired to prevent development. In addition, these facilities may aid in reducing traffic volumes.
TRANSPORTATION	
1. Expand public transportation facilities.	The Forest Service supports substantial transportation improvement prior to further population expansion. We will be working to reduce auto traffic resulting from National Forest activities.
2. Improve pedestrian and bicycle facilities.	This is a high priority in areas where the National Forest has been developed. In order for bicycle and pedestrian travel to significantly displace auto use as a means of transportation in the Basin, much improvement must occur in the extent and design of facilities within the communities.

(HE-158) 35

STATE OF NEVADA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
CAPITOL COMPLEX
CARSON CITY, NEVADA 89710

TELEPHONE (702) 885-4670

February 25, 1980

James Thompson
Chief, Nevada Branch
EPA, Region IX W-4
215 Fremont Street
San Francisco, California 94105

RE: Draft Environmental Impact Statement - Proposed Wastewater Treatment Facilities South Shore Lake Tahoe Basin

Dear Jim:

Enclosed are NDEP's comments concerning the subject EIS.

Yours truly,

Jim

James B. Williams
Construction Grants Officer

JBW:ba

Enclosure

cc: Oliver Kahle

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

Comments concerning the Draft Environmental Impact Statement; Proposed Wastewater Treatment Facilities, South Shore Lake Tahoe Basin.

General Comments:

1. The ongoing efforts by State government, local governments, Federal agencies and regional planning agencies are largely neglected in this document. Items to be considered should include:

   a. Ordinances

   b. Project review procedures

   c. Required structures to treat urban run-off

   d. Control on construction

   e. Land use control (density, land coverage, protection of environmentally sensitive areas).

2. Resource constraints should receive more attention. Resources such as the following should be considered:

   a. Water supply

   b. Power

   c. Land available for development

   d. Air quality

3. The impacts of a no action alternative should be evaluated.

4. Many of the figures and tables have no source reference. Referencing the source of the information would be very helpful to the reader.

5. This document contains a "laundry list" of mitigation measures. No effort has been made to screen the measures in order to recommend those that would be practicle or reasonable to implement. Required mitigation measures must be implementable by the grantee or other governing bodies in a timely manner in order to provide the treatment capability and capacity needed to meet water quality goals and requirements.

In order for the public to adequately assess the benefits and impacts of implementing the mitigation measures, the measures should be discussed in terms of:

a. Mitigation which can be achieved with existing ordinances, policies and other controls.

b. The costs ($) of implementing additional mitigation measures.

c. What must be done administratively to implement the additional measures.

d. Manpower required to adequately enforce the mitigation measures.

6. The authors tend to assume that what is true in California is also true in Nevada. This is generally not the case.

7. Wastewater treatment agencies should not be held responsible to mitigate measures which they do not have the authority to implement. The wastewater treatment agencies forsee a need to expand their services to provide for projected growth. They should not be held responsible for assuring that other service agencies (police, fire protection, schools, utilities, medical, transportation, etc.) expand their facilities to accommodate this growth.

It should not be the responsibility of wastewater treatment agencies to solve all of the problems of the Lake Tahoe Basin.

Specific Comments

1. Page 21 - II-1; Need for Growth Scenarios - The first sentence is misleading. The existing treatment plant was designed to treat average daily flow of 3 MGD. The recommended project is to treat an average annual daily flow of 3 MGD* with additional capacity to improve plant reliability and to provide treatment capability to meet permit conditions at peak flows.

Table 1, page 4, relates daily maximum flows to various growth scenarios. An average daily flow of 3 MGD corresponds to a daily maximum flow of 4.8 MGD (using a peaking factor of 1.6) which would be the flow projected for growth scenario 3.

2. Table 5, page 26; states that the baseline flow should be 2.3 MGD. It is not clear as to what this baseline con-

*See Table 7.02 of DCSID's Facility Plan.

dition means. Is the 2.3 MGD to be a maximum daily flow or is it to be an average daily flow. In Nevada, treatment plant design is usually based upon a 30 day average daily flow with provisions for handling peak flows.

The relationship between average daily flows and maximum daily flows is illustrated in the following table.

Peaking factor: $\frac{\text{Maximum Daily Flow}}{\text{Average Daily Flow}} = 1.6$ *

Annual Average Daily Flow	Maximum Daily Flow
2.3 MGD	3.7 MGD
3.0 MGD	4.8 MGD
1.4 MGD	2.3 MGD
1.9 MGD	3.0 MGD

It is critical that the EIS provide justification for baseline flows and describe what the baseline flow means (maximum day, average daily, etc.) and how this baseline flow is going to be applied in terms of design criteria.

3. On page 45, Waste Discharge Requirements, the second sentence states, "Recently, the Nevada Division of Environmental Protection has taken responsibility for the administration of the present system ...." The State of Nevada was delegated the NPDES program in September 1975. I do not consider this "Recently".

4. On pages 46 and 47; table 12 contains some errors. The table should indicate that the discharge limitations apply to a discharge to the East Fork of the Carson River. There are different limitations for land application. "Immediate Conditions" should read interim limits and "Future Conditions" should read final limits. The interim limitations for flow should read a daily maximum of 3 MGD.

5. Page 48: If regional solutions are to be evaluated, Carson City should also be considered.

The information concerning the Minden-Gardnerville Sanitation District, Incline Village General Improvement District and Gardnerville Ranchos is outdated and erroneous.

6. Page 69: The last paragraph states that water was pumped from the lake to meet western Nevada discharge requirements. I don't believe water was pumped from the lake since the 1930's

7. Page 103: First paragraph: Responsibility. U.C. Davis is a private contractor and has no responsibility

*See Table 3.11 of DCSID's Facility Plan.

this area.

8. Page 108: Migitation Measures

a. It should be noted that the building code is enforced.

b. This might be a good idea but I do not believe it is the responsibility of the agency responsible for wastewater treatment to implement land use controls.

9. Pag 117: Mitigation Measures

a. Existing inventories and controls should be identified.

b. Protection of osprey nests is a worthy endeaver. However, it is not clear to me why osprey's were singled out for special consideration and why osprey's habitat protection is not lumped with all other species under mitigation measure 4.

This measure should not be a condition for granting costruction funds since wastewater treatment agencies have no authority or influence on federal lands.

10. Pages 118 and 119:

a. Mitigation measure #3; existing survey and controls should be identified.

b. Mitigation measures 4, 5 and 6; existing ordinances and controls should be discussed.

11. Pages 125 and 126:

a. The suggested mitigation measures for noise control will be difficult to implement and enforce, and are beyond the authority of wastewater treatment agencies to implement.

b. The construction of noise barriers could have more negative than positive impacts. The negative impacts include:

a. Reduction of visibility.

b. Creation of an attractive nuisance.

c. Complicaton for snow removal.

d. Creation of a problem with aesthetics.

12. Pages 141 and 142:

a. Existing ordinances and controls should be discussed.

b. Mitigation measure #6; wastewater treatment agencies should not be held responsible for a measure which would require action by Congress.

13. Page 156 - 2 - Housing - It should not be a requirement for wastewater treatment agencies to solve the problems related to housing in the Basin. Wastewater treatment agencies have the responsibility to provide the service of collecting, treating and disposing of wastewater in an acceptable manner and should not be saddled with the responsibility of solving all the social and economic problems of the Basin.

14. Page 174: Mitigation Measures; wastewater treatment agencies should not be responsible for solving transportation problems any more than should transportation agencies be responsible for solving wastewater problems.

15. Page 184: Solid Waste Management; in the third paragraph it should be noted that the trip from the transfer station to the landfill east of Gardnerville, is 97 miles round trip.

16. Page 195: Water; this section implies that the interstate compact is enforceable. This is not the case. The document won't be enforceable until it is approved by the U.S. Congress. The true status of the compact and the manner in which it is utilized should be clarified.

17. Page 198: The peaking factors $\frac{(\text{Maximum Day Flow})}{(\text{Average Day Flow})}$ contained in the table at the bottom of the page don't appear to be reasonable and should be justified.

18. Page 200: The assumptions at the bottom of the page don't appear to be accurate and should be substantiated.

19. Page 202: Second paragraph - this paragraph should indicate that plant modifications are needed for scenarios 1, 2 and 3, and expansion is needed for scenarios 4 and 5.

20. Page 202: The last paragraph is completely inaccurate and should be rewritten and updated.

21. Page 208: The costs associated with enforcing and administering water conservation programs should be discussed.

22. Pages 208 and 209: Mitigation measure #4 - Costs to users

a. The grant percentages apply only to the State of California where state grants are available. Nevada does not have a state grant program and grants are available for 75% to 85% of the eligible capitol costs.

b. The relationship of the required mitigation measures to the construction grant process should be discussed.

c. The Nevada Division of Environmental Protection would be opposed to any grant conditions imposed upon DCSID #1, which would require the District to mitigate any impacts related to flows of less then 3 MGD average annual daily flow. We feel that the impacts of flows up to an average annual daily flow of 3 MGD have already been evaluated and found to be acceptable by all responsible authorities.

23. Page 209: Mitigation measure #5;

a. Nevada also has a statute which allows the beneficial reuse of effluent within the Tahoe Basin.

b. The assumption that in-basin reuse would require reverse osmosis is unwarranted.

24. Page 209: The discussion of the measures related to Energy (measures 6-12) are inadequate. The monetary and environmental costs of providing adequate energy capacity should be discussed.

25. Figures 15-18 and 20: These figures include most of Washoe Valley, which is in the Truckee River Basin. This should be so indicated on the figures.

26. Pages 226 - 229: Implementation of these mitigation measures is far beyond the capacity or the authority of DCSID #1 or STPUD.

27. Page 321: Figure 18; the notations concerning the Dayton Valley and Eagle Valley groundwater basins are incorrect and misleading.

28. Page 237 - Table 38: If this table indicates standards violations it should be so indicated in the table title. It is not clear what the upper and lower numbers represent on each line.

Why was the year 1975 selected for Table 38? Why not all the years for which data is available? This table should be completely revised.

29. Page 236: Nevada has also established beneficial uses for the Carson River. Beneficial uses of Carson River waters have been designated since 1967.

30. Page 257: Critical Implications - it should be noted that although new appropriations for water rights for subdivisions may not be available. Existing water rights from lands with water rights may be converted for quasi-municiple use for subdivisions on that land.

31. Page 263: The transportation mitigation measures are beyond the authority of DCSID #1 or STPUD. Before these measures are required it should be demonstrated that they can be implemented in a timely manner and that they will be effective in providing acceptable air quality.

32. Page 286: Hopefully, the final EIS will identify the impacts which must be mitigated in order to receive grant funds and hopefully the sewage treatment agencies will not be held responsible for mitigating impacts over which they have no control or legal responsibility

(HE-158) 36

STATE OF NEVADA
GOVERNOR'S OFFICE OF PLANNING COORDINATION
CAPITOL COMPLEX
CARSON CITY, NEVADA 89710
(702) 885-4865

February 27, 1980

Ms. Janet Rosati
U.S. Environmental Protection
Region 9
215 Fremont St.
San Francisco, CA 94105

RE: SAI NV# 80300040 Project: Wastewater Treatment Facilities

Dear Ms. Rosati:

Attached are the comments from the following affected State Agencies: Division of Environmental Protection concerning the above referenced project.

These comments constitute the State Clearinghouse review of this proposal. Please address these comments in the final or summary report.

Sincerely,

Mike Nolan

Mike Nolan for
Robert M. Hill
State Planning Coordinator

RMH:md

Enclosures

STATE OF NEVADA
PLANNING COORDINATOR
CAPITOL BUILDING
CARSON CITY, NEVADA 89710

MEMORANDUM

TO: Pete Morros, Assistant Director

FROM: Division of Environmental Protection

SUBJECT: SAI# 80300040 Wastewater Treatment Facilities

In reference to the above project, the Division of Environmental Protection staff has the following comments:

Air

Dick Serdoz: Table 29 does not contain the applicable Nevada Ambient Air Standards. There are errors in the ozone, SO_2, Pb, Visibility and TSP Standards. The definition of the problem indicates a problem with ozone, but because of the new Federal Ambient Air Standard the Basin is no longer a non-attainment area for ozone. There were only 13 days in 1977 that the Federal CO Standard was violated and only 4 days in 1978 at the Nevada Site.

The data for the Park Avenue and Highway 50 Intersention was never accepted as valid data. What is the reason for your including information on average 8 hour information when it is of little significance? The information in the first paragraph on page 131 appears to be leading up to a conclusion, but it never is addressed. The table on page 134 does not reflect the State of Nevada's acceptance and official submittal of the NAP.

Why are bicycle facilities important for a wintertime air pollution problem?

Page 242 mixed metric and English units - all tables and references should be in metric including table #29.

The appendices, page 77: Aprac-2 was not used for determining CO concentration in the NAP. The impact analaysis was through the use of Highway or Caline-2. These models were compared to actual measured data. The ambient data on page 90 was never accepted. There was a significant amount of analaysis on ozone which was not necessary as there is not a local ozone problem.

288

M E M O R A N D U M

TO: Pete Morros, Assistant Director

FROM: Division of Envrionmental Protection

SUBJECT: SAI NV# 80300040 Wastewater Treatment Facilities

In reference to the above project, the Division of Environmental Protection staff has the following comments.

Water

James B. Williams, Jr: A cursory review of these documents indicates that there is considerable erroneous, misleading and outdated basic information included. Hopefully this will be corrected in the final draft. The Nevada Division of Environmental Protection does not agree with the requirement for mitigation of impacts for "expanding" capacity for DCSID above 2.3 MGD. The existing plant was designed to treat 3.0 MGD and DCSID should be allowed to upgrade their facility in order to provide an acceptable degree of treatment of that flow, without additional requirements for mitigation.

Solid Waste

Verne Rosse: The report fails to discuss the growth controlling issue of water availability. This particular issue includes the bistate agreement on water allocations. Nevada is controlling growth statewide on the availability of the water resources.

The report needs to go into the actual use of water in the basin vs. the water rights in each state and the differences in the two State's water laws. (e.i. Nevada includes groundwater withdrawal in its allotment, while I don't believe California does.)

Development at Tahoe should be based on the availability of natural resources (water & air). With the limited supply of resources local municipalities should control development based on those resources, which will also establish the size of other public facilities such as sewage treatment facilities.

Natural Resources Defense Council, Inc.

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SAN FRANCISCO, CALIFORNIA 94108
415 421-6561

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(HE-158) 37

REGION IX
COMM. CENTER
FEB 29 11 17 AM '80

February 28, 1980

Mr. Paul DeFalco, Jr.,
Regional Administrator
United States Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, California 94105

re: Draft Environmental Impact Statement:
Proposed Wastewater Treatment Facilities
South Tahoe Public Utilities District and
Douglas County Sewer Improvement District No. 1

Dear Mr. DeFalco:

This letter constitutes the comments of the Natural Resources Defense Council, Inc. (NRDC) on the above-mentioned Draft Environmental Impact Statement (DEIS). NRDC is a national environmental organization with offices in San Francisco, California, New York City, and Washington, D. C. It has more than 40,000 members across the country, and is staffed by attorneys, scientists and legal assistants.

NRDC's comments will be addressed solely to an important area of confusion in the DEIS. The confusion is this: The DEIS indicates at some points that Douglas County Sewer Improvement District No. 1 (DCSID) has not requested funds for expansion of its treatment plant beyond its present design capacity of 3.0 MGD annual average flow and 4.8 MGD daily maximum. (DEIS at 2, 56, 204) Elsewhere in the DEIS, however, it is stated that both DCSID and South Tahoe Public Utilities District (STPUD) are "seeking to improve and expand their present wastewater treatment facilities." (DEIS at 21; see also 23 re "capacity decisions" for DCSID, 202, 280.) Thus at the outset there is confusion in the DEIS regarding what DCSID is seeking from EPA.

Examining this area of confusion further, various important questions arise:

(1) What specifically is the proposal for major federal action significantly affecting the quality of the human environment which EPA is presenting? The reference to DCSID having "applied to EPA for federal funds" is unjustifiably vague and undocumented. (DEIS at 1.)

(2) If DCSID is only seeking funds for upgrading its present facilities within the original design criteria, why has

73
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EPA misstated DCSID's intentions at various points? Similarly, why does the DEIS analyze scenarios which include capacity expansions by DCSID going beyond the original design criteria?

(3) At some early points the DEIS recognizes that increased capacity at DCSID surely will encourage growth in the Tahoe Basin (DEIS at 2-3), but by the end the DEIS has shifted emphasis to situations in which growth has already occurred, leading to circumstances in which "expansion of plant capacity is necessary." (286) The DEIS thus seems to have started with a limited proposal for upgrading present capacity (albeit a proposal which is poorly defined, undocumented, and described at times as an expansion proposal), then to have constructed growth scenarios which presumably could be consequences of the limited proposal, and then to have used those very same scenarios as a basis both for finding that capacity expansion may be "necessary" and for concluding that, with adequate mitigation measures, "EPA would be willing to fund expansion of treatment capacity" at DCSID.

In short, the analysis in the DEIS regarding DCSID is fundamentally confusing and circular: The DCSID (upgrading) request leads to growth scenarios which make the (expansion) request necessary! This flawed approach appears to have resulted from a failure to define the DCSID proposal with specificity and the use of growth scenarios premised upon a DCSID expansion proposal, even though no such proposal appears to have been made.* The STPUD expansion proposal itself would not necessitate expansion at DCSID, so the joint

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*It should be noted that DCSID has itself made very confusing statements regarding the nature of the proposal it has presented to EPA. In a legal Memorandum submitted on January 4, 1979 to the United States District Court for the District of Nevada in U.S. v. DCSID (Civ. R-78-0123 ECR), DCSID stated:

> "An environmental impact statement is presently being prepared by EPA in response to a grant request made by DCSID for capacity expansion of its sewage treatment work. (Sic) The environmental impact statement that is presently being prepared by EPA has nothing to do with the 3 million gallon per day discharge capacity for which the DCSID sewage treatment facility is currently licensed. At the present time DCSID has not reached its maximum 3 million gallon per day discharge capacity. The effluent standard limitations which form the basis of the UNITED STATES OF AMERICA's suit against DCSID are in no way related to the request for federal funds for the additional capacity to the DCSID's sewage treatment works which has in turn triggered the preparation of an environmental impact

(footnote continued on next page)

analysis in the DEIS does not explain away the confusion.

In view of these uncertainties and flaws in the DEIS, the public is unable to know just what DCSID and EPA are contemplating doing. The public does know, however, that EPA has prepared a DEIS which concludes that EPA would be willing to finance more growth at Tahoe by expansion of the DCSID capacity. EPA has done an inadequate job of defining the proposal before it, however, and of justifying the scenarios it has analyzed in relation to that proposal. EPA also has come to a conclusion that is remarkably inappropriate in view of the serious and adverse environmental effects discussed. NRDC of course fully supports and values detailed analysis of the environmental effects of growth in critical areas such as the Tahoe Basin. Some such analysis is present in this DEIS, but nonetheless the premises behind the growth scenarios are flawed, as discussed above, and the final conclusion is wholly unwarranted.

In short, EPA apparently has been asked about limited funds to upgrade current capacity treatment, but has answered an entirely different question, the question of capacity expansion. Because this DEIS fails to inform either the public or EPA itself as to what Federal action is contemplated for DCSID, the DEIS does not provide a clear, coherent, and legally sufficient foundation for any decisions to be made by EPA. NRDC believes the DEIS thus is wholly inadequate as a basis for any action on the limited proposal DCSID seems to have made to EPA. Furthermore, the DEIS provides no lawful basis for any EPA action on any DCSID capacity expansion proposals which may later be made and which would then themselves have to be subject to the requirements of the National Environmental Policy Act (NEPA).

Very truly yours,

Kenneth A. Manaster

KAM:as

Kenneth A. Manaster

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* (footnote continued)

statement by EPA." DCSID's "Memorandum of Points and Authorities in Opposition to Natural Resources Defense Council, Inc.'s Motion for Preliminary Injunction" at p. 8 (emphases in original). These statements were reiterated by DCSID in the same case in almost precisely the same words on April 17, 1979. See DCSID's "Memorandum of Points and Authorities in Opposition to Natural Resources Defense Council, Inc., Motion for Partial Reconsideration and Modification of Order Striking Portions of Complaint in Intervention" at 3-4.

(HE-158)38

407

RECEIVED
REGION IX

FEB 8 11 :4 AM '80

Environmental Protection Agency
215 Fremont Street
San Francisco, Calif. 94105

January 30, 1980

Gentlemen:

As a concerned citizen of California, and a person who truly appreciates the environment of the Lake Tahoe Basin, I feel compelled to put forward my views on the recent hearings conducted concerning the question of sewar expansion at Lake Tahoe.

It seems to me that the local agencies involved in the controversy put forward a one-sided view that does not represent the ideals of the majority of those residing in either California or Nevada. The Lake Tahoe area is one of the most (if not the) beautiful places in the country, and in my opinion it is not one to be left to the profiteering of local real estate companies and businesses. It is a place that has been blessed with a beauty, both in its mountain scenery and pure lake quality, that is unsurpassed in the rest of the country. It is too important to be subject to local squabbles that could affect its its pristine effects on all people.

I was appalled when I read that John Riley, developer of the Alpine Meadows ski resort, stated that "no matter how much we screw up Lake Tahoe, it will still look better than Bakersfield." As much as I love skiing, this man should not be allowed to influence your decision to enlarge the current capacity of the Lake Tahoe area. Further, Bill Huss, attorney for the Douglas County district, stated the insane argument that "no one is moving to Ely, Nevada just because it has sewar treatment capacity." Both of these statements do not take into account at all that Lake Tahoe is not either Bakersfield or Ely, but a rare and unique place.

Short of a no-growth policy enacted by the voters, the limitation on sewar capacity is the next best thing. If a no-growth policy cannot be implemented by the local voters, it is your job to protect the area. A limit on sewar growth is an effective means to reach this goal, that of preserving the area before it becomes similar to which I live, the Los Angeles area. For an excellent example, just look at what the Santa Barbara area, and others, have done. Granted, there are drawbacks, such as higher priced housing, but please look at what is really at stake.

The next time I come to Lake Tahoe, I do not wish to travel through "suburb" upon "suburb". I do not wish to spend my time upon a lake that is clouded with silt from developments.

If the only answer is to restricting sewar permits, please do it.

Paul W. O'Brien

(HE-158) 39

RECEIVED
REGION IX
FEB [illegible] 7 AM '80

Feb 20, 1980

George Drake
PO Box 7987
So. Lk. Tahoe, CA 95731

Environmental Protection Agency

Dear People:

Enclosed please find a copy of a letter to the editor of the Tahoe Tribune. It expresses my concern over possible expansion of S.T.P.U.D. facilities.

The EPA is absolutely right in observing that S.T.P.U.D. is part of the problem, not part of the solution. Any expansion of S.T.P.U.D. facilities must be tied legally to conditions which will prevent the issuance of new connections whenever the facilities reach a certain level of usage. That level ought to be one which provides plenty of margin for error and which is decided by EPA, not STPUD.

Sincerely,

George Drake.

Jan 29, 1980

George Drake
PO Box 7987
So. Lk. Tahoe CA
541-2792
541-4680 x 43

Editor:

Our sewer is full to the brim (sometimes so full it spills into the lake).

We want a bigger sewer.

Our sewer is full to the brim because we have continued to issue new sewer connections when it was too close to full already. We continue, even after the first big spill, to issue new sewer connections (how they are dispensed is an appallingly trivial question once we decide to issue them despite the fact we're too full already - which was proven by the spill).

We argue that we have to have a bigger sewer because we are too full for this one.

Do we ask ourselves what happens when the new sewer is too full? Do we even stop making the old one fuller until we find out if a new one will be built? Do we make any guarantees that the new one won't be filled too full? Do we expect anything but bigger spills in the future, whether or not the new sewer is built? Do we admit our inability to resist the pressure of the special interest groups that dominate local government? Do we cooperate in efforts to remove the control to bodies large enough to at least stand a chance of succeeding where we have failed so miserably?

Ah, there's not a "yes" in the crowd!

Perhaps, with the help of our elected officials, the prophesy of a local developer, as reported in Friday's Tribune, "no matter how much we screw up Lake Tahoe, it will still look better than Bakersfield" will eventually be looked back on as truly extraordinary in its wisdom and foresight. And at least it's an honest appraisal of where so many of our local movers are coming from.

George Drake

316 (HE-158)4 0

State of California
GOVERNOR'S OFFICE
OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO 95814

EDMUND G. BROWN JR.
GOVERNOR

REC'D BY E.P.A
REGION IX
COMM. CENTER
FEB 26 [illegible] '80

February 22, 1980

Mr. Paul DeFalco, Jr.
Regional Administrator
U.S. Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, CA 94105

Dear Mr. DeFalco:

The Governor's Office of Planning and Research has reviewed the Draft Environmental Impact Statement, prepared by the EPA, on the proposed wastewater treatment facilities, South Shore Lake Tahoe Basin. Our concerns lie primarily with the timing and lack of coordination with other agencies in preparation of the Statement and in the approach and assumptions made in writing the DEIS. The Statement fails to adequately address the impacts on energy consumption associated with the proposed expansion and presents mitigation measures of questionable feasibility considering the severity of the impacts suggested in the DEIS. There is also some question as to the propriety of even discussing a project that will lead to increased growth in an area which has reached or is exceeding many of its environmental thresholds.

The DEIS seems to be an excellent example of the lack of coordination among decision making bodies that was recently criticized in the Western Federal Regional Council's (WFRC) Lake Tahoe Environmental Assessment. The DEIS is inconsistent with the State Water Resources Control Board's Water Quality Plan: Lake Tahoe Basin, prepared in compliance with Section 208 of the Clean Water Act. It apparently makes little use of the Environmental Assessment prepared by the WFRC, nor does it take the Air Resources Board's non-attainment plan into active consideration. The EIS should take all available information into consideration in identifying a preferred alternative. It is especially important that EPA decisions be consistent with the Lake Tahoe Basin Water Quality Plan.

A general concern lies in the question of how much growth the Lake Tahoe Basin can actually accommodate. The Environmental Assessment of Lake Tahoe mentioned earlier has served to clarify this problem further. Marc Petty, Chairman of the Tahoe Coordinating Group, has pointed out that, "Today, the

Lake Tahoe Basin can best be characterized as a system strained to the breaking point." It is imperative that the EPA closely examine the Lake Tahoe Basin and all the impacts of growth in addition to realistically assessing the feasibility of activities designed to mitigate environmental degradation.

The organization and assumptions of the report are also of immediate concern. The National Environmental Policy Act requires that an EIS present alternatives, including a "No Action" possibility, to the project under discussion. The final EIS then specifies the most environmentally acceptable alternative. While the DEIS is intended to examine the secondary impacts of expanding wastewater treatment facilities at Tahoe, it fails to present alternatives to the projects preferred by STPUD and DCSID. The DEIS also fails to discuss the consequences of taking no action and possibly curbing Tahoe's growth. The five growth scenarios simply serve to ensure that expansion will occur provided "adequate mitigation" takes place.

Under the SWRCB 208 plan the STPUD facility would expand to 7.5 million gallons per day. Even at this level, the plan calls for mitigation far in excess of those measures suggested for a 10 mgd plant in the DEIS.

The scenarios are based on the assumption that, "Growth is not directly constrained by environmental standards." This assumption is contradicted by land use ordinances established by CTRPA. Such an assumption bodes ill for the future of the environment. NEPA was enacted to ensure that growth took place only after deliberate consideration was given to environmental constraints.

Increased growth is almost certain to have an impact on energy consumption in the Lake Basin. More fuel will be used as more people travel to the lake and more electricity, gas and other forms of energy will be consumed as they stay in the Basin. According to the Lake Tahoe Basin Environmental Assessment prepared by the Western Federal Regional Council consumption of transportation fuels increased 140% between 1973 and 1976. At South Shore, peak electricity demand has exceeded reliable supply since 1971. Given the increased growth patterns outlined in the DEIS, it seems only appropriate that it discuss the potential impacts on energy consumption in the Basin.

In addressing the impacts associated with various growth levels the DEIS thoroughly examines the effects on many aspects of Tahoe's environment. There is no real attempt, however, to assess the cumulative effects of growth. In the letter of transmittal for the WFRC report, Marc Petty states: "Historically, growth has proceeded in cycles with the roles of the private sector, the Federal Government, and state and local government closely linked. Each has stimulated and accommodated the activities that, in the aggregate, cause environmental deterioration to accumulate." The EIS should synthesize all direct and secondary impacts of the proposed expansion and address the compounding effects of various impacts.

The DEIS concludes saying "....funding a treatment plant of this capacity can be approved if there is no resulting environmental degradation of the region." This is a laudable goal, yet achieving it entails the successful implementation of mitigation measures outlined in the DEIS which are, in some cases, unrealistic. The proposed expansion will lead to growth levels which are accompanied by severe environmental impacts. It is quite difficult to assure that no degradation will take place simply due to a few mitigation measures. This is especially true when discussing the impacts implied by scenarios two and five. The DEIS acknowledges such problems in its discussions of zoning ordinances and the like.

The mitigation procedures themselves are somewhat vague. It is unclear how/whether the EPA plans to enforce the procedures outlined. The DEIS needs information on the effectiveness of the proposed mitigation measures in order to adequately assess the impacts of facility expansion. The EPA needs to take responsibility for, and clearly define all those activities which will ensure that no environmental degradation takes place.

Since your agency is charged with protection of the environment and enforcement of the Clean Air and Clean Water Acts and is also a member of the WFRC, I urge you to reexamine the DEIS for the Tahoe Basin to assure the protection of an invaluable resource for future generations.

Sincerely,

Deni Greene

Deni Greene
Director

DG:njs

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (HE-158) 41

DATE: 19 March 80

SUBJECT: Acceptance to the Record of Letter with Enclosures from State Water Resources Control Board in the Matter of Public Hearing on Draft EIS, Lake Tahoe; Project No. C-06-1414

FROM: M. S. Walker (E-2)
Hearing Officer

TO: The File

The attached material (not including the cover letter dated March 11, 1980) evidently was mailed from Sacramento to EPA in time to be delivered before the close of the administrative record on 29 February 80. It was misdirected to 100 California Street, San Francisco (EPA, Region IX's former address).

Under the circumstances, the material will be accepted in the record and considered along with all other information.

Attachment

STATE OF CALIFORNIA—RESOURCES AGENCY
EDMUND G. BROWN JR., *Governor*

STATE WATER RESOURCES CONTROL BOARD
P.O. BOX 100, SACRAMENTO, CALIFORNIA 95801
(916) 322-0216

MAR 11 1980

Ms. Janet Rosati
Environmental Protection Agency
215 Fremont Street
San Francisco, CA 94103

Dear Janet:

Enclosed is a copy of the State Water Resources Control Board's comments on the EIS on the south shore Lake Tahoe treatment facilities (Project No. C-06-1414). Also enclosed is the * envelope in which a copy of the comments was mailed to Dave Jones. As the envelope indicates, the comments arrived on or before February 29, but were returned to the State Board because they were addressed to EPA's former address.

As it is my understanding that you already have received a copy of the State Water Resources Control Board's draft Water Quality Plan, I am not enclosing a copy. If you would like an extra copy, please let me know.

Sincerely,

Andy Sawyer

Andy Sawyer

Enclosures

* Note: "Envelope" not enclosed. Xerox copy of envelope enclosed.
L.P.

(HE-158) 41

STATE WATER RESOURCES CONTROL BOARD
P.O. BOX 100
SACRAMENTO, CA 95801

Note Look up Name

Mr. Dave Jones
Environmental Protection AGency
Region IX
100 California Street
San Francisco, California 94111

andy PEI 11.8 (HE-158) 41

STATE OF CALIFORNIA-RESOURCES AGENCY EDMUND G. BROWN JR., Governor

STATE WATER RESOURCES CONTROL BOARD
P.O. BOX 100, SACRAMENTO, CALIFORNIA 95801
(916) 445-1553

February 22, 1980

Mr. Paul De Falco
Environmental Protection Agency
Region IX
100 California Street
San Francisco, Calif. 94111

In Reply Refer
to: 210:AS

Dear Mr. De Falco:

REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR PROPOSED WASTEWATER TREATMENT FACILITIES, SOUTH SHORE LAKE TAHOE BASIN, PROJECT NO. C-06-1414

This office has reviewed the Draft EIS on this project, dated October 1979. The State Water Resources Control Board (SWRCB) hereby presents preliminary comments on the draft document.

These comments concern the proposed projects to expand the South Tahoe Public Utility District (STPUD) and Douglas County Sewer Improvement District No. 1 (DCSID) treatment works. The projects would have major adverse impacts on water quality and water use in the Lake Tahoe Basin. The Environmental Protection Agency (EPA) should not award grants for these projects without clear, enforceable commitments to controls which will prevent the projects from resulting in any deterioration of Lake Tahoe water quality. No grants should be awarded for projects which are inconsistent with the SWRCB's Water Quality Plan for the Lake Tahoe Basin. EPA should also require controls on water use. Grants should not be awarded if the projects will result in water use in excess of the amounts available for use in the Lake Tahoe Basin under the interstate water compact agreed to by California and Nevada.

I. WATER QUALITY

A. Consistency With the SWRCB's Water Quality Plan

Enclosed is a copy of the SWRCB's draft Water Quality Plan for the Lake Tahoe Basin, which the SWRCB released on January 17, 1980. The draft Plan details the water quality problems at Lake Tahoe, and the measures needed to prevent further deterioration of water quality. This information should be included in EPA's final EIS, as indicated in the cover letter to the draft EIS.

The final EIS should go beyond incorporating the information in the SWRCB's Plan. The EIS should be consistent with the Plan. The Plan is being prepared pursuant to Section 208 of the Clean Water Act. This Act requires that once the Plan is approved by SWRCB and EPA, all sewage treatment facility grants must be consistent with the Plan. In the meantime, EPA should use the SWRCB's draft Plan as a guide to determine what facilities may be approved.

For its part, the SWRCB will make sure its Project Priority List is consistent with its Water Quality Plan, using the draft Plan as a guide until the final Plan is released. For STPUD to receive a wastewater treatment facility construction grant from EPA, the project must be on the SWRCB Priority List. The project will not be on the List if it is inconsistent with the SWRCB draft Plan.

B. Mitigation of Water Quality Impacts

Lake Tahoe is an outstanding national resource. The Clean Water Act, as interpreted by EPA Regulations, mandates that degradation of the Lake shall not be allowed. The cover letter to the EIS properly states:

> "It is therefore imperative that EPA assure the proposed sewage treatment projects do not directly or indirectly cause the deterioration of Lake Tahoe's high quality waters."

But the proposed sewage treatment projects will accelerate the deterioration of Lake Tahoe water quality unless strict controls are imposed on any future development.

Lake Tahoe is still one of the clearest lakes in the world, but the quality of Lake Tahoe is not being maintained. Steep slopes, unstable soils, and a short growing season for vegetation to be reestablished make the Tahoe Basin extremely sensitive to erosion. Rapid development of the Basin has created erosion problems which have greatly increased the amount of sediment and nutrients reaching the Lake in surface runoff. These nutrients stimulate the growth of algae. Over the past 20 years, algal growth rates have doubled. Further increases in algal growth could alter the color and clarity of the Lake. Already, observers note a visible increase in the amount of attached algae in nearshore waters.

Alarming as these trends are, they do not reflect the full impact of development on water quality. Once erosion problems are created, they continue to pour nutrients into the Lake year after year. These nutrients accumulate in the Lake over decades, perhaps centuries. Thus, we have not seen the full impact of the development which has already occurred.

To maintain water quality, we need to achieve a major reduction in the amount of sediment and nutrients reaching the Lake each year. Any project which results in a net increase in sediment and nutrient loads will contribute to further deterioration. Likewise, any project which interferes with an achievement of the reduction in sediment and nutrient loadings needed to maintain water quality will contribute to the deterioration of the Lake.

SWRCB's draft Plan details (at Pages 116-127; see also Pages 79-85) the restrictions necessary to ensure that additional development does not contribute to further deterioration of water quality.

New subdivisions must be prohibited. New subdivisions disturb large areas for road construction and utility installation. Even before the first house is built the average subdivision disturbs about 20% of the area, and erosion problems are closely related to percent disturbance. Per unit built, new subdivisions cause over three times as much erosion as construction filling-in existing subdivisions. The EIS assumes that the existing subdivision moratorium in California will remain in force. EPA should require that the subdivision moratorium be changed to a permanent prohibition before awarding any grant for expansion of sewage treatment capacity on the California side. EPA should also require that Nevada limit construction to lots in existing subdivisions as a precondition for sewage treatment facility grants.

Strict controls on lots in existing subdivisions are also needed. Construction in high erosion hazard lands, where construction may cause erosion to increase to as much as one-thousand times natural levels, must not be permitted. Construction in stream environment zones must also be prohibited so that the natural capacity of these areas to filter sediment and nutrients from surface runoff is maintained.

Another essential control measure, not discussed in the EIS, is limiting impervious surface coverage and land disturbance according to land capability. Concentrated runoff causes serious erosion problems when too much coverage is allowed.

With these controls, and if best construction practices are enforced, increases in sediment and nutrient loadings from new developments can be held to low levels. But even with strict adherence to land capability, and following the best known construction practices, development on sites in the Lake Tahoe Basin at least doubles the rate of erosion. To maintain water quality, we need a major reduction in sediment and nutrient loads. Any additional development in the Lake Tahoe Basin will contribute to further deterioration of the Lake unless it is offset by remedial projects to correct existing erosion problems in the Basin. EPA, therefore, should require, as a mitigation measure for any future development, that offsetting erosion control projects be constructed, so there is no net increase in sediment and nutrient loads.

In summary, the control measures needed to ensure that additional development does not impair the water quality of Lake Tahoe are:

- No new subdivisions;
- No construction on high erosion hazard lands;
- No construction in stream environment zones;
- No coverage in excess of land capability;
- Best construction practices for all permitted development; and,
- A requirement that any additional development be offset by construction of erosion control projects to correct existing problems.

Without clear, enforceable commitments to carry out these controls, no grants for expansion of sewage treatment capacity should be approved.

Capacity

The capacity which may be funded clearly should not exceed that amount required to serve the development which would occur if all the necessary restrictions on development are enforced. Prohibitions on construction on fragile lands or in excess of land capability will greatly reduce the number of lots which can be used for residential or commercial construction. The SWRCB's Water Quality Plan estimates that with these controls in force, and with construction on all lots in existing subdivisions where development would still be permitted, the STPUD would only need to expand capacity to 7.5 MGD.

The critical issue is not the exact capacity, however, but what it is used for. Any expansion, no matter how small, would be inconsistent with SWRCB's draft Water Quality Plan unless it can be assured that it will not be used to serve development which is on fragile lands or which is in excess of land capability. Increases in capacity to more than 7.5 MGD may still be acceptable, on the other hand, if it can be shown that the larger capacity is necessary because of increases in persons per household or similar factors. The draft Water Quality Plan estimates that 7.5 MGD of treatment capacity will be needed, but the Plan specifies (at Page 198) that more refined flow estimates may be made as part of detailed facilities plans.

C. Pollution Models

The EIS includes projections based on two models developed in the preparation of the Tahoe Regional Planning Agency's (TRPA) 1977 Draft 208 Plan. One of the TRPA models, used for the projections on Page 96, estimates suspended sediment yield. The other, relied on in Table 28, projects potential changes in pollutant concentrations. The projections made using these models clearly indicate that additional development poses a threat to water quality. However, the models are of limited utility in determining what mitigation measures are required to prevent deterioration of water quality. Moreover, the use of the models is misleading, as they underestimate the severity of the water quality problem.

The TRPA models were developed by J. B. Gilbert & Associates (JBG&A), a consulting firm hired to help prepare the 1977 Draft 208 Plan. JBG&A also provided consulting services to the SWRCB in the preparation of its draft Lake Tahoe Basin Water Quality Plan.

SWRCB staff, working with JBG&A, reviewed the TRPA models to determine how they could be used in the preparation of the SWRCB's Water Quality Plan. We concluded that the TRPA models should not be relied upon to predict changes in sediment yield and nutrient concentrations in the Lake under the alternatives being considered in the SWRCB's Water Quality Plan. JBG&A has reviewed the discussion below, and indicated its concurrence with the conclusions.

1. Sediment Yield Model - Although useful for the purposes for which it was used in the TRPA Plan -- projecting increases in erosion from construction of residential or commercial subdivisions on currently unsubdivided land -- the TRPA model has several shortcomings:

   - The TRPA model only projects changes resulting from subdivision of currently unsubdivided land. It does not project changes resulting from buildout of existing subdivisions. Because it only considers the increases in erosion resulting from new subdivisions, the TRPA model underestimates the effect of additional construction in the Basin. The TRPA model and the sediment yield model developed by SWRCB for its Water Quality Plan predict similar increases for new subdivision construction, roughly 12,000 metric tons per year. But the SWRCB model estimates a greater increase in total sediment yield over present levels as a result of future construction because it takes into account increases in erosion from buildout of existing subdivisions. It should be noted that the SWRCB's estimate for erosion after full development under the TRPA Regional Plan is about 84,000 metric tons per year. The 72,000 metric tons per year estimate discussed at Page 97 of the EIS is for buildout of existing subdivisions only.

     Samples collected for the TRPA model included samples from sites on all land capability levels, grouped by land use district. The TRPA model cannot be used to predict changes based on land capability or the percentage of an area which is disturbed. It therefore cannot be used to assess the effect of mitigation measures such as prohibitions against construction on high erosion hazard land or limiting coverage to the limits called for by the land capability system.

The TRPA model overestimates the amount of erosion occurring under natural conditions. The TRPA model assumes that runoff from land zoned General Forest reflects natural conditions. But much of the land zoned General Forest has been disturbed, by logging in the last century, dirt roads, highways, and even residential construction. According to a TRPA lot count, General Forest lands on the California side of the Basin include 1,328 developed lots, with a total of 2,960 dwelling units.

2. Pollutant Concentration Model - The basic problem with the TRPA pollutant concentration model, as used in the EIS, is that the information needed to predict nutrient concentrations in Lake Tahoe is not available. We do not know precisely how long nutrients entering the Lake remain in its waters. Without this information, the TRPA model cannot accurately predict nutrient concentrations in the Lake. Only on the basis of certain assumptions which do not accord with conditions in the Lake was it possible for the TRPA model to predict nutrient concentrations.

   The TRPA 1977 Draft 208 Plan predicted that with full development of all lands zoned for development in the Basin, algal growth rates in the Lake would increase by approximately 6% over the next 80-100 years. In fact, algal growth rates have been increasing at a much higher rate.

   The enclosed letter from Lawrence A. Klapow explains in detail the problems with using the TRPA model to predict nutrient concentrations.

II. WATER SUPPLY

The Report on Water Use and Water Rights in the Lake Tahoe Basin, recently released by the SWRCB, proposes allocating the water available to California under the interstate water compact among three zones. The report proposes an allocation of 12,100 acre-feet to a zone which generally corresponds to the STPUD service area. The EIS indicates that with the increased development induced by proposed projects, water use would exceed this allocation, thus threatening to result in water use on the California side of the Basin in excess of the amount available under the interstate water compact.

The situation is similar in Nevada. In 1976, over 3,000 acre-feet of water were used for domestic use or irrigation on the north shore. Even in the highly unlikely event that this figure does not increase, the increase in south shore domestic water use as a result of the proposed DCSID plant expansion, as projected in the EIS, would result in total water use in excess of the 11,000 acre-feet per year available to Nevada under the water compact.

Grants should not be awarded unless it can be assured that the projects will not result in water use in excess of that available under the interstate water compact. Grant conditions or mitigation commitments may take a variety of forms, ranging from water conservation programs to restrictions on connections. It is not likely, however, that water conservation programs alone will be sufficient to mitigate an expansion of capacity intended to serve new subdivisions, as is being proposed by the DCSID. Whatever grant conditions or mitigation commitments are agreed to, they should be clear and enforceable.

III. ALTERNATIVES

Most of the environmental impacts from the proposed projects result from the development induced by expansion of treatment capacity, and the extent to which capacity will be expanded is one of the most controversial issues involved. The EIS therefore should consider alternatives which reflect different treatment capacities. These should include:

- an alternative involving no expansion of capacity
- an alternative which expands capacity to levels consistent with the SWRCB's draft Water Quality Plan

The EIS should also include a "no project" alternative.

As a funding agency, the SWRCB reserves the right to make further comments on this report prior to granting project approval.

Should you have any questions concerning this review, please contact Andrew Sawyer at (916) 322-0216.

Sincerely,

Carla Bard
Chairwoman

Enclosures

cc: Mr. Dave Jones
EPA, Region IX
San Francisco

Mr. David Antonucci
CRWQCB, Lahontan Region (6)
South Lake Tahoe

Mr. James W. Burns
Resources Agency
1416 Ninth Street
Sacramento, CA 95814

(HE-158) 41

RECEIVED 2679
REGION

Public Utilities Commission
STATE OF CALIFORNIA

February 1, 1980

FILE NO. A.57626

A. Sawyer
State Water Resources Control Board
1416 Ninth Street
Sacramento, CA 95814

Dear Mr. Sawyer:

Subject: Lake Tahoe Pollution Models

The relationships between pollutant additions to Lake Tahoe and the Lakes subsequent response are matters of both practical and scientific importance. The first formal attempt to describe these relationships in a quantiative way, was undertaken by J. B. Gilbert and Associates during the preparation of the 1977 draft 208 plan prepared for the Tahoe Regional Planning Agency (TRPA).

TRPA's model (described in Volume III, Chapter III of the 1977 TRPA draft 208 plan) starts from a mass balance which simply states that the change in the amount of pollutants (i.e., sediment and nutrients) in the Lake is equal to the difference between annual inputs and losses. This basic mass balance relationship was then mathematically developed to provide equations for predicting pollutant concentrations through time (TRPA's equation 5) and the ultimate equilibrium pollutant concentration (TRPA's equation 6) that would result from a specific rate of pollutant addition to the Lake.

$$C_t = \frac{W}{\frac{1}{t_o} + K} \left[1 - e^{-\left(\frac{1}{t_o} + K\right)t} \right] C_o e^{-\left(\frac{1}{t_o} + K\right)t} \qquad \text{(TRPA'S EQUATION \#5)}$$

$$C_e = \frac{W}{V\left(\frac{1}{t_o} + K\right)} \qquad \text{(TRPA'S EQUATION \#6)}$$

Where: C_t = Pollutant concentration in the Lake at time t;

C_o = Initial pollutant concentration in the Lake;

C_e = The ultimate concentration of the pollutant in the Lake in equilibrium with a pollutant loading rate W;

W = Annual pollutant load to the Lake from runoff and precipitation;

Reproduced from best available copy.

t_o = The hydraulic residence time, equal to V/Q_D where V is the Lake's volume and Q_D is its annual out-flow + water diversions[1]; and

K = The annual removal of pollutant by all process other than outflow and diversion.[2]

The State Board's staff quickly realized the importance of the model and consulted with J. B. Gilbert and Associates early on the development of the Board's 208 plan. As a result of these discussions, it was recognized that the model could be improved and simplied in the following ways.

1. Pollutant loads from natural ground water sources were added to the term, W. This is only a minor change since natural ground water pollutant loads are small compared with runoff and precipitation sources.
2. K was redifined as the annual pollutant remove rate due to all processes. The new, K, is equal to TRPA's term $(\frac{1}{t_o} + K)$.
3. Pollutant residence time, R, was defined as $\frac{1}{K}$.

The new equations corresponding to TRPA's equations 5 and 6 are respectively:

$$C_t = \frac{RW}{V}\left[1 - e^{-\left(\frac{t}{R}\right)}\right] + C_o e^{-\left(\frac{t}{R}\right)}$$

and

$$C_q = \frac{RW}{V}$$ (where C_q = equilibrium pollutant concentration in Lake = TRPA's C_e)

The final equation is the classifical residence time equation, familiar to most geochemists. Recognizing that $R = \frac{1}{K}$ and that the new K is equal to TRPA's $\frac{1}{t_o} + K$, simple algebraic substitution will show that these new equations are identicle to TRPA's equations 5 and 6 (with the exception that the new, W, includes ground water loads, a minor difference in practice).

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[1] TRPA mistakenly identifies t_o as "the average pollutant residence time in the Lake." This is not factually correct: t_o is merely the hydraulic residence time. The correction is somewhat academic since in operation TRPA's models treats the term $\frac{1}{t_o}$ as the portion of annual pollutant removal solely attributable to Lake outflow and out-of-basin diversions (which is a correct use of the term).

[2] TRPA actually defines K as the annual rate of removal of pollutants due to sedimentation alone. However, it is clear from TRPA's use of K that it includes not only sedimentation but also losses due to evaporation and chemical-biological transformations; in short, all other removal processes aside from Lake outflow and water diversions.

While the old and new equations are virtually identicle in form, their uses in the TRPA and State Board draft 208 plans are decidedly different. The TRPA plan attempts to describe changes in pollutant (nutrients) in the Lake in terms of absolute concentrations. These predicted nutrient concentrations are then translated into productivity utilizing laboratory bioassay data, ultimately leading to predicted decreases in water clarity. The State Board Plan only attempts to forecast percentage changes in Lake nutrient concentrations, as a planning guide, and does not attempt to provide precise predictions concerning future Lake productivity or water clarity.

While the TRPA predictions of Lake response are certainly more detailed than those provided in by the State Board staff, there is now clear evidence that TRPA's prediction are inaccurate. The TRPA draft predicts that with full development of basin lands primary productivity in the Lake would increase by approximately 6 percent over the next 80 to 100 years. In fact measured rates of productivity have been increasing much faster.

Some of the reasons which we believe explain, at least in part, the failure of the TRPA forecasts are outlined below:

1. In order to predict absolute changes in pollutant concentrations (i.e. nutrients) the value of K, or its reciprical R, must be known for each pollutant considered. TRPA uses the following equation to determine K.

   $$K = \frac{W}{C_e V} - \frac{1}{t_o} \quad \text{(TRPA'S EQUATION \#7)}$$

   Values for V and $\frac{1}{t}$ can be specified with reasonable precision. The predevelopment pollutant load was used for W. (This is logically correct, although we believe the actual predevelopment pollutant load was greatly overestimated in the TRPA report).

   TRPA used the present nutrient concentrations in the Lake as a estimator of C_e, the natural concentration of nutrients in the Lake prior to development of the surrounding basin. The State Board staff believes that equating existing nutrient concentrations with C_e is not a supportable procedure. The true value of C_e is undoubtedly lower than existing pollutant concentrations as evidenced by the Lake's recent history of increasing productivity. Furthermore it would be no more than sheer coincidence if the errors in the estimates of W and C_e exactly cancelled to give accurate estimates of K. In short, in the absence of a suitable method for establishing a reliable K, TRPA's equations for forecasting the change in nutrients concentrations and the ultimate equilibrium nutrient levels can not be solved.

   The State Board modeling effort involves fewer assumptions as to how the Lake assimilates pollutants and the valves of parameters controlling this process. This results in what we believe are more reliable though less detailed forecasts of Lake response. The

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residence time equation , $C_u = \frac{RW}{V}$, can be rewritten as $\frac{C_u}{W} = \frac{R}{V}$. The latter form indicates that the equilibrium concentration of a pollutant (C_u) is proportional to its loading rate, since their quotient is equal to a constant $\frac{R}{V}$. (Note: we don't have to estimate R or its reciprical $\frac{1}{R}$, but only assume as that it is constant which is the basic assumption of the entire model). Given estimates of predevelopment, present, and future pollutant loading rates, it is possible to predict percentage (i.e., proportional) increases in nutrient levels above predevelopment Lake concentrations (See Table II-7, 1980 State Board draft 208 plan).

2. The TRPA plan utilizes forecasts of nutrients in conjunction with laboratory algal bioassay data to predict increases in Lake Tahoe's primary productivity. There is no indication in the report that factors which effect algal growth in nature (seasonal variation in light intensity, temperature, algal standing crop, or variation of these properties with water depth) were taken into account. Indeed it is the opinion of competent scientists, who have studied Lake Tahoe over many years, that it is not yet possible to forecast precisely changes in Lake Tahoe's productivity. What can be said, with certainty, is that increasing nutrient loads will stimulate additional eutrophication, and the State Board's forecasts end at this point. To go beyond such simple statements to predict quantitative changes, is beyond our present knowledge, and when attempted has resulted in faulty predictions as evidenced by the TRPA draft 208 plan.

Sincerely,

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LNG Task Force

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